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Pso: psoriasis; PsA: psoriatic arthritis

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POSTERS AND ORAL COMMUNICATIONS

CLINICAL GUIDELINES AND RECOMMENDATIONS FOR PSORIASIS TREATMENT

P 001

Antibody formation to adalimumab in the treatment of psoriasis vulgaris is most often seen before 24 weeks of treatment and has great influence on clinical efficacy: one year data in 59 patients

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Introduction: In a previously reported cohort of 29 patients with plaque type psoriasis followed for 24 weeks, clinically relevant antibody formation to adalimumab was frequently found (Lecluse 2010). We now present the extent and clinical consequences of antibody formation against adalimumab in the treatment of 59 patients followed for 1 year.
Objectives: To determine the extent and clinical impact of antibody formation against adalimumab in the treatment of psoriasis vulgaris in a larger group of patients over a longer period of time.
Materials and Methods: From 59 consecutive patients treated with adalimumab for plaque type psoriasis at the department of dermatology in the participating centres, the disease severity (measured by PASI) was assessed at baseline, week 12, 24, and 52. At these moments blood was drawn at an adalimumab trough level. Adalimumab (ADA)- and antibody (ATA) concentration was determined. A correlation was calculated between clinical response, ADA- and ATA concentration.
Results: In total, 45.8% of patients formed ATA, 10 patients before week 12, 14 patients between week 12 and 24 and 3 patients between week 24 and 52. The Spearman's rank test showed a correlation between ADA concentration and ATA concentration, clinical efficacy and ATA concentration and ADA concentration and clinical response of −0.824, −0.561, and 0.578 respectively. Five patients were treated with methotrexate concomitantly, one of them formed (low) ATA. Fifteen patients had a dose-interval shortening due to lack of efficacy, of whom 7 patients with and 8 patients without ATA. Respectively 1 (low ATA) out of 7 and 4 out of 8 improved.
Conclusion: This study shows that patients who do not develop ATA in the first 6 months of treatment have little chance of developing ATA the following 6 months. Conform patients with rheumatoid arthritis, also in patients with psoriasis there is a trend of less ATA formation with concomitant methotrexate. Dose interval shortening might be useful if no ATA are present though it seems less useful if ATA is present.
Disclosure of Interest: None declared.

P 002

Clinical experience of Ustekinumab for the treatment of elderly patients with psoriasis

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Introduction: The percentage of the elderly is increasing in advanced countries. The incidence of patients with psoriasis over 65 years old is common in our institution. However, the exact prevalence and incidence of psoriasis in the elderly is unclear. Aggressive systemic treatments for the elderly patients should be avoided to reduce the risk of adverse events or complications, even though the impairment of quality of life (QOL) of the elderly patients is similar to that of younger patients. For systemic treatments of the elderly patients, Ustekinumab (UST) seems to be the most appropriate treatment since it is less likely to cause organ dysfunction compared with conventional systemic treatments, and it also requires fewer visits to hospital.
Objectives: This study evaluates the efficacy and safety of UST in Japanese elderly patients with psoriasis.
Materials and Methods: Fifteen patients with psoriasis who were over 65 years old with severe psoriasis and/or impaired QOL, were examined. The efficacy, adverse events, and complications were investigated over 1-year period.
Results: PASI75 achievement was 33% at week 16, 45% at week 24, 40% at week 52, respectively. None of the patients developed serious adverse events during 1-year treatment. Four out of fifteen patients showed abnormal findings of chest CT and QFT. All these patients were treated with prophylactic anti-tuberculosis drugs, and they did not develop liver toxicity and tuberculosis during the treatment. Four patients showed anti-HBc antibodies positive, and 2 patients showed anti-HBs antibodies. However, they did not develop significant increase in liver function during the treatment.
Conclusion: UST showed satisfactory efficacy for the elderly patients with psoriasis without any serious adverse events during 1-year treatment. The QOL of all patients was also improved. Our results suggest that UST treatment is a preferable agent for the elderly patients with psoriasis.
Disclosure of Interest: None declared.

P 003

Determinants of long-term drug survival of etanercept in patients with plaque psoriasis: a daily-practice cohort study

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Introduction: Drug-survival is an indirect measurement for treatment success. Long-term data of etanercept drug-survival in psoriasis patients in daily-practice are scarce.
Objectives: The primary objective was to describe drug-survival of etanercept in a long-term daily practice cohort of patients with psoriasis. The secondary objective was to identify determinants for drug-survival in general, related to adverse events, and related to lack of efficacy of therapy.
Materials and Methods: Data on drug-survival were extracted from a prospective daily-practice cohort of patients treated with biological agents for plaque psoriasis. Patient and treatment characteristics were recorded. The first registered etanercept treatment-episodes of patients were used. Drug survival was analyzed descriptively by Kaplan-Meier survival curves and analysis was split for the two main reasons of discontinuation: adverse events and lack of effect. Determinants for drug-survival were analyzed in univariate analysis and in multivariate Cox-regression analysis with backward selection.
Results: Data of 193 patients with a total of 511.4 patient years on etanercept was analysed. The maximum treatment duration of patients was 7.5 years. The overall drug survival as measured by the Kaplan-Meier method was 77%, 42%, and 29% after 1, 4, and 7.5 years, respectively. The mean survival time was 3.8 years (95% CI 3.4–4.3).The most frequent reason for discontinuation was lack of effect of etanercept treatment (60.2% of all discontinued patients). Determinants for longer general drug-survival were: sex (male), prior TNF-alpha use and a lower mean weekly dose of etanercept. Patients with a lower age and a lower BMI had a lower chance on discontinuation of etanercept due to *side-effects.* Patients using a lower

mean weekly dose of etanercept (Exp(B) 0.955) had a lower chance on discontinuation of etanercept due to *ineffectiveness* of therapy.
Conclusion: In the present daily-practice cohort study, we analyzed the 7.5-year etanercept drug survival in patients with plaque psoriasis. Most patients discontinued etanercept due to inefficacy of treatment. The determinants for longer drug-survival depended from the reason for discontinuation of etanercept (side-effects and inefficacy of therapy). More similar drug-survival analyses in other daily practice registries would help us to establish a greater amount of accuracy in defining patient characteristics related to long-term drug survival.
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P 003 bis

An independent prospective randomized controlled trial comparing the efficacy and cost effectiveness of infliximab and etanercept in 'high need' patients with moderate to severe chronic plaque type psoriasis

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Introduction: TNF antagonists such as etanercept and infliximab (biologics) have been approved for the treatment of moderate to severe psoriasis patients. There are no direct comparative studies available of infliximab and etanercept.
Objectives: Our objective was to compare by an investigator initiated prospective randomized controlled trial the efficacy, patients' perspectives, safety and cost-effectiveness, of infliximab versus etanercept.
Materials and Methods : Consecutive patients of our outpatient clinic were screened for eligibility. Patients were randomized to receive either etanercept 50 mg subcutaneous twice weekly or infliximab 5 mg/kg at week 0, 2, 6, 14 and 22 intravenous for 24 weeks. After 24 weeks, patients stopped or continued the study medication. Patients were followed every two months up to 1 year.
One of the primary outcomes was a 75% improvement of the psoriasis area and severity index (PASI75) at week 12 and 24. Furthermore many patient reported outcomes were assessed like the impact on quality of life, a global assessment and treatment satisfaction. Other outcomes included duration of remission, side effects and cost-effectiveness.
Results: Fifty-three patients were screened, 50 patients were randomized. Two patients were excluded due to false inclusion. Of the 48 patients, 25 received infliximab and 23 etanercept. At week 12 and 24, 76% respectively 72% of the patients in the infliximab group versus 21.7% respectively 34.8% of the patients in the etanercept group achieved a PASI75 response ($p = 0.00$ respectively $p = 0.01$).
Skindex-17 showed a relative reduction of 52.8% for infliximab versus 41.8% for etanercept ($p = 0.23$) at week 12 and respectively 60.2% versus 50.4% ($p = 0.29$) at week 24. The patients' global assessment with 'totally or good under control' was achieved at week 12 by 76% (19/25) in the infliximab group and 56.5% (13/23) in the etanercept group, $p = 0.15$.
After 24 weeks, the duration of remission had a mean of 15.5 (SD 8.05) weeks for infliximab ($n = 12$) and 13.7 (SD 11.7) weeks for etanercept ($n = 6$), $p = 0.7$. Twenty-two patients continued the medication through week 48 and showed a stabilised PASI.
76.1% of the adverse events in the infliximab versus 66.2% in the etanercept group were mild. In each group one serious adverse event was reported, both 'unlikely' related to the study medication. Severe adverse events were reported in 5% in the infliximab group and 7.4% in the etanercept group.
Conclusion: Although, infliximab showed a significant higher level of efficacy based on PASI reduction with a rapid onset of action, patient reported outcomes showed less significant differences. One year data showed that both treatments were safe.
Disclosure of Interest: A. de Vries: None declared, T. Nijsten: None declared, B. Opmeer: None declared, H. Bonnerjee: None declared, W. de Kort: None declared, B. Horvath: None declared, E. de Jong: None declared, J. van Busschbach: None declared, M. Visser: None declared, P. Spuls Grant/Research Support from: unrestricted grant in 2010 from Schering-Plough for research, Consultant for: performs studies together with many pharmaceutical industries, such as Janssen, Centocor, Schering-Plough,

COMPLICATED SCENARIOS

P 004

The cardiovascular assessment tool (cvat): assessing risk factors for cardiovascular disease in patients with moderate to severe psoriasis treated with fumaric acid esters

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Introduction: Psoriasis is associated with metabolic comorbidities and an increased cardiovascular (CV) risk.
Objectives: The aim of this study was to analyze the occurrence of metabolic and CV risk factors in patients (pts) with moderate to severe psoriasis started on fumaric acid esters (FAE; approved as Fumaderm®), using a novel assessment tool (CVAT).
Materials and Methods: This multicenter, prospective, non-interventional trial was conducted at 122 German sites and included pts with moderate to severe psoriasis started on FAE therapy. The CVAT as well as efficacy (Physician's Global Assessment, (PGA), Psoriasis Area and Severity Index (PASI), Body Surface Area (BSA), Dermatology Life Quality Index (DLQI) and (serious) adverse events (SAEs/AEs) were recorded at baseline and after 16 weeks.
Results: The safety population comprised 230 pts. The analysis population included 195 pts with week 16 data.
Usage of the CVAT revealed the presence of at least one component of the metabolic syndrome in 79% and of two or more in 45% of the pts (8% with coronary heart disease); overall, 10% diabetes, 35% hypertension, 30% dyslipidemia, 66% a BMI > 24 and 26% a BMI > 30. 36% of the pts were smokers, 17% ex-smokers. Other comorbidities included inflammatory conditions (11%) and mental disorders (4%).
Most pts received FAE as per recommended dosing scheme without differences between pts with or without metabolic comorbidities.
After 16 weeks of treatment, a PGA $\leq$ 1 was achieved by 17%. Mean improvements of PASI, BSA and DLQI were 43%, 37%, and 40%, respectively. There was a trend for a decreased clinical response in pts with vs.

those without metabolic comorbidities (mean PASI reduction −39% vs. −54%, mean DLQI reduction −37% vs. −50%).
46% of the pts had at least one concurrent medication and 62% received medication for diseases of the CV system. 35% saw a non-dermatologist physician during the 16 weeks.
Forty six pts reported at least one AE (20%), 4 (2%) had 7 SAEs. 1 SAE was classified as treatment-related. Thirty-two pts (16%) terminated the study prematurely, half of those due to AEs. More pts with metabolic comorbidities reported AEs and SAEs than pts without (39 vs. 7 and 3 vs. 1).
Overall, the CVAT was rated by physicians as useful, easy to understand and complete and easily to be integrated in the dermatological practice.
Conclusion: In summary, comorbidities are frequently present among pts with moderate to severe psoriasis started on FAE therapy; FAE appear to be effective and safe in pts with CV risk factors. This study indicates that psoriasis pts with metabolic comorbidities have lower clinical response rates compared to pts without and may require special attention regarding safety monitoring. The CVAT helped to identify associated risk factors in psoriasis pts and was rated useful and easy to implement in the dermatological practice.
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Disclosure of Interest: K. Reich Speaker bureau of: Abbott, Biogen Idec, Celgene, Centocor, Janssen-Cilag, Leo, Medac, MSD (formerly Essex, Schering-Plough), Novartis, Pfizer (formerly Wyeth), Grant/Research Support from: Abbott, Biogen Idec, Celgene, Centocor, Janssen-Cilag, Leo, Medac, MSD (formerly Essex, Schering-Plough), Novartis, Pfizer (formerly Wyeth), Consultant for: Abbott, Biogen Idec, Celgene, Centocor, Janssen-Cilag, Leo, Medac, MSD (formerly Essex, Schering-Plough), Novartis, Pfizer (formerly Wyeth), K. Merten Employee of: Biogen Idec GmbH, *N.* Berenzen: None declared, W.-H. Boehncke Speaker bureau of: Biogen Idec, Grant/Research Support from: Biogen Idec

P 005

Psoriasis is not associated with atherosclerosis and incident cardiovascular events: the Rotterdam study

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Introduction: Psoriasis has been suggested to be an independent risk factor for cardiovascular disease; however available studies have shown inconsistent results.
Objectives: The present study, embedded within the population-based Rotterdam Study, is designed to assess the association between psoriasis and atherosclerosis and cardiovascular events.
Materials and Methods: The psoriasis and reference population were compared as to body mass index (BMI), smoking, total and high density lipoprotein cholesterol, blood pressure, antihypertensive medication and diabetes mellitus.
Using general linear models, we calculated crude and adjusted means with standard deviations for subclinical measures of atherosclerosis. The hazards of the cardiovascular events myocardial infarction, stroke and heart failure and their 95% confidence intervals (CI) were compared between the two groups using COX regression with psoriasis as time dependant variable.
Results : A total of 262 psoriasis patients and 8009 reference subjects were followed for a mean of 11 years. The mean age of the psoriasis group was 64.3 compared to 68.8 for the reference population. Of the psoriasis patients, 24% were treated with systemic medication or UV therapy. Psoriasis patients smoked more and had a higher BMI. The mean carotid intima-media thickness (IMT) was 1.00 ± 0.20 for psoriasis and 1.02 ± 0.21 for reference subjects ($p = 0.47$), the adjusted IMT did not differ considerably for the two groups (1.02 ± 0.18 and 1.02 ± 0.16 respectively). Similarly, the crude and adjusted mean ankle-brachial index, pulse wave velocity and median coronary artery calcium scores were not different between the groups. The risk of incident cardiovascular disease was not significantly increased in psoriasis patients compared to the reference population with an adjusted HR of 0.73 (95%CI 0.50–1.06).
Conclusion: This population-based cohort study shows that psoriasis patients with predominantly mild disease are as likely to develop atherosclerosis and cardiovascular events as subjects without psoriasis.
Disclosure of Interest: None declared.

P 006

Insomnia in patients with psoriasis: consequences and associated factors

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Introduction: Psoriasis is a chronic, inflammatory skin disease with a significant impact on health-related quality of life and sleep.
Objectives: The aim of this study was to investigate prevalence and characteristics of psoriasis-related insomnia, and evaluate differences in demographic and clinical characteristics among patients with or without sleep disturbances, so as to determine associated risk factors.
Materials and Methods: Psoriatic patients have completed an Internet survey including demographics and clinical questionnaires. Among respondents, socio-demographic profiles, self-reported disease histories were gathered and patients who had or did not have insomnia were compared. Spearman rank correlation completed by Fisher's exact test and Student's t-test were performed to identify risk factors of insomnia within the last month.
Results: A total of 571 patients met the inclusion criteria and completed the survey. Insomnia was reported by 31.7% of the sample. Moderate or severe psoriasis as assessed by dermatologists (OR1.5), number of relapses superior to four per year (OR1.18), body surface areas of more than two tracks hands covered with psoriasis (OR1.24)are significant predictors of insomnia. Symptoms associated with psoriasis such as severepruritus (OR1.3), burns (OR2.3), xerosis (OR1.2), cracked and bleeding skin (OR1.6) were all significantly related to insomnia. Morbidities associated with insomnia are dizziness (OR3.68), allergic rhinitis (OR1.92), depression (OR3.57), anxiety (OR2.14), asthma (OR2.04), migraines (OR2.02), stress (OR1.98), and obesity (OR1.36). Diabetes and hypertension are not significant predictors of sleep interference. Our study clearly demonstrated a negative impact of insomnia on the social and professional life.
Conclusion: Patients with psoriasis continue to experience significant impairment of sleep disturbance. A better understanding of insomnia is necessary to improve the overall care of patients with psoriasis. Sleep disturbances should be taken into consideration when evaluating the burdens of psoriasis and designing effective treatment plans.
Disclosure of Interest : B. HALIOUA Consultant for: Leo Pharma France, A. MOTRUNICH Consultant for: Leo Pharma France, A. MAURY LE BRETON Employee of: Leo Pharma France, A. de FONTAUBERT Employee of: Leo Pharma France, F. MAUNOURY Consultant for: Leo Pharma France, M.-E. ROUSSEL Employee of: Leo Pharma France, F. DOGNIAUX: None declared, J.-F. STALDER Consultant for: Leo Pharma France.

LOOKING AT THE FUTURE

P 007

Impaired nuclear translocation of glucocorticoid receptors: novel findings from psoriatic epidermal keratinocytes

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Introduction: Psoriasis is a chronic proliferative skin disease and is usually treated with topical glucocorticoids, which act through the glucocorticoid receptor (GR), a component of the physiological systems essential for immune responses, differentiation, and homeostasis.
Objectives: To investigate the possible role of GR in the pathogenesis of psoriasis, we use normal and psoriatic lesional skin to show changed pattern of immunolocalization of GR in both the skin and cultured epidermal keratinocytes before and after different treatment by immunofluorescence technology. Then we further investigated possible factors associated with the changed GR distribution.
Materials and Methods: Normal and psoriatic lesional skin were recruited. The immunolocalization of GR in the skin and cultured epidermal keratinocytes were determined by using immunofluorescence technology. In normal skin and cultured human epidermal keratinocytes, intracellular GR is localized in the nuclei, whereas in psoriatic skin and cultured keratinocytes, GR is in the cytoplasm. We then investigated possible factors associated with the impaired nuclear translocation of glucocorticoid receptors.
Results: We found that VEGF and IFN-γ led to impaired nuclear translocation of GR through p53 and microtubule-inhibitor, vincristine, and inhibited nuclear uptake of GR in normal keratinocytes. In addition to dexamethasone, interleukin (IL)-13 was also able to transfer GR into nuclei of psoriatic keratinocytes. Furthermore, discontinuation of dexamethasone induced cytoplasmic retention of GR in normal keratinocytes. In contrast, energy depletion of normal epidermal keratinocytes did not change the nuclear distribution of GR. To confirm our findings *in vivo*, an imiquimod-induced psoriasis-like skin mouse model was included. IL-13 ameliorated (but vincristine exacerbated) the skin lesions on the mouse.
Conclusion: Taken together, our findings define that impaired nuclear translocation of GR is associated with VEGF, IFN-γ, p53, and microtubule. Therapeutic strategies designed to accumulate GR in the nucleus, such as IL-13, may be beneficial for the therapy of psoriasis.
Disclosure of Interest: None declared.

P 008

Psoriatic skin model produced by the auto-assembly method: evaluation of new alternatives

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Introduction: Psoriasis is a skin pathology that affects 2% of the world population. This pathology is characterized by reddish and whitish plaques that are the result of a hyperproliferation and an abnormal differentiation of keratinocytes. Currently, treatments of this disease are temporary and no curable treatments have been found.
Objectives: The aim of this study was to evaluate, on a phenotypical basis, the effects of modifying the auto-assembly method developed in our laboratory for the production of psoriatic skin substitutes, in order to allow the fabrication of more reproducible substitutes that could be used for pharmacological testings.
Materials and Methods: Psoriatic and healthy skin substitutes were produced by the auto-assembly method partially modified, using 6-well plates and 12-well plates. Briefly, the fibroblasts were cultured in the presence of ascorbic acid at a concentration of 50 μg/ml until they form manipulable sheets. These sheets were superimposed and incubated for 7 days to form a new dermal layer. After this period, keratinocytes were seeded on the dermal layer to form a new epidermal layer. After 7 days, the substitutes were raised to the air-liquid interface. Skin substitute biopsies were taken at 21 days after being raised to the air-liquid interface and they were examined by histology, immunohistochemistry and western blot.
Results: Masson's trichrome staining of psoriatic skin substitutes showed a thickening of the *stratum corneum* (hyperkeratosis) and a persistence of nuclear structures in corneocytes of the *stratum corneum* (parakeratosis) with both methods: 6- and 12-well plates. Immunoflorescence markers such as filaggrin, loricrin and keratin 14 have confirmed the Masson's trichrome results and demonstrated interesting differences. In one of the three psoriatic cell populations used for the skin substitute production with the 6-well plates method, the loricrin marker (a granular layer marker) was detected, whereas no expression of this marker was observed using the 12-well plates method. It appeared that the presence of a granular layer in a psoriatic skin sample may suggest that the psoriatic cells are expressing what is known as a stationary or a resolving phase of the pathology. In the 12-well plates method, the presence of the same quantity of cells but on a smaller surface, could be mimicking an active phase of the psoriatic cells and be the explanation of the absence of a granular layer.
Conclusion: Characteristics of psoriatic skin is reproduced and conserved with both methods: 6- and 12-well plates, same as what was previously shown by our group using the conventional self-assembly method. We believe that these modifications: decreasing the number of cells used and standardizing substitute's size leading to more reproducible substitutes are good alternatives for the production of psoriatic skin substitutes, which can be used for pharmacological testings.
Disclosure of Interest: None declared.

P 009

Characterization of psoriatic skin substitutes cultured in serum or serum-free condition at the air-liquid interface

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Introduction: To investigate the different pathological mechanisms having a role in the development of psoriasis, three-dimensional models of skin reproduced in the laboratory must represent as closely as possible psoriasis *in vivo*. Therefore, the skin substitutes must imitate the characteristics of the human skin. As a result, the parameters of the cell culture should be well defined.
Objectives: The aim of this current research was to vary the conditions of culture removing the addition of serum and to continue the observations on maintaining the quality of healthy and psoriatic skin substitutes. Effects of serum-free culture from the air-liquid interface were evaluated on the proliferation and differentiation of keratinocytes pathology in a model of psoriatic skin. Thus, morphological, physico-chemical and permeability analysis of normal and psoriatic skin substitutes grown in complete medium were compared to those grown in serum-free medium.
Materials and Methods: The healthy and psoriatic skin substitutes were produced according to the self-assembly approach developed by the LOEX. The starvation of serum has been performed at the air-liquid interface. After 21 days of culture at the air-liquid biopsies and analyses were conducted.
Results: The results of macroscopic, histological, immunohistochemical and permeability obtained with healthy substitutes cultured with or without serum showed no significant difference. ATR-FTIR results showed no significant differences of the CH_2 bands between psoriatic substitutes

cultured with or without serum suggesting that the starvation of serum did not have negative impact on the lipid organization of the *stratum corneum*. Percutaneous analyses demonstrated that psoriatic substitutes cultured in serum-free condition showed a higher permeability to hydrocortisone and benzoic acid compared with psoriatic substitutes cultured with serum while no significant differences in caffeine penetration was observed.

Conclusion: In this study, we showed that, even if some changes appeared between the two conditions, the psoriasis phenotype was maintained suggesting that production of psoriatic skin substitutes in serum-free condition is acceptable. Thus, the starvation of serum could be considered for studies which necessitate strictly controlled parameters.

Disclosure of Interest : None declared.

PSORIATIC ARTHRITIS

P 010

The predictive factors of adverse events in psoriatic arthritis patients treated with anti-TNF drugs

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Introduction: The treatment of moderate-severe psoriatic arthritis (PsA) has tended to include the same DMARDs as those for RA, but there is much less evidence supporting their efficacy and essentially none demonstrating that they slow radiographic joint destruction in PsA. On the contrary, a number of clinical trials have shown that tumour necrosis factor (TNF) antagonists are generally safe and efficacious in the treatment of PsA, and can inhibit the progression of radiographic damage.

Objectives: To identify the clinical factors that predicted serious adverse events (SAEs) to anti-TNF in PsA patients on the basis of the data included in the LORHEN register.

Materials and Methods: The study involved 161 adult (82 Females; 79 Males) patients with long-standing PsA (mean age 53.12 $\pm$ 13.2 years; mean disease duration 11.9 $\pm$ 7.8 years) enrolled in the LORHEN register, who had been treated for at least six months with TNF inhibitors or had discontinued therapy due to SAEs: 2 (11.1%) treated with infliximab (IFN), 4 (22.2%) with adalimumab (ADA), and 12 (66.7%) with etanercept (ETN). Potential predictors of AEs were identified.

Results: All of the patients had peripheral PsA and 10 (16%) had also axial involvement, 6 (2.74%) showed lung involvement, 4 (1.83%) history or signs of coronary artery disease, 34 (15.6%) hypertension, 6 (2.75%) diabetes, and 11 (5.05%) dislypidemia. The majority of patients were being treated with methotrexate at a mean dosage of 7.5 mg/day (range 5–15), nine were taking sulphasalazine, and five were taking cyclosporine and three leflunomide. Ninety patients was taking corticosteroids at mean dosage 5.6 $\pm$ 3.79 and 64 NSAIDs. All of the patients were rheumatoid factor and anti-CCP negative, and all had significantly higher C-reactive protein and erythrocyte sedimentation rate values (2.72 $\pm$ 7.92 mg/dl and 19.22 $\pm$ 17.07 mmHg/h). The risk of SAEs wasn't significantly different among the three treatment groups ($p < 0.528$). A higher probability of SAEs in patients with PsA was associated with comorbidities (OR 7.059, 95% CI[2.679–18.597]; $p < 0.0001$), but not with the age at the start of treatment (OR 1.003 95% CI [0.966; 1.041]; $p = 0.8740$), the gender (F vs M, OR 1.139, 95% CI [0.471; 2.755]; $p = 0.7726$), no previous use of corticosteroids (OR 0.695, 95% CI [0.262; 1.841]; $p = 0.4637$) and/or smoking habitus (OR 0.979, 95% CI [0.233; 4.107]; $P = 0.9771$).

Conclusion: Anti-TNF therapy is associated with risk of SAEs in PsA patients, that is associated with the comorbidities, but not with the type of anti-TNF agent or corticosteroid use.

Disclosure of Interest: None declared.

P 011

Elbow arthritis and palmoplantar pustulosis: is it psoriatic arthritis or sapho syndrome?

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Introduction: SAPHO syndrome is a rare, chronic, inflammatory disorder characterized by heterogeneous osteoarticular and cutaneous manifestations especially palmoplantar pustulosis. The mean differential diagnosis is psoriatic arthritis.

Objectives: To discuss the differential diagnosis between psoriatic arthritis and SAPHO syndrome.

Materials and Methods: Case report.

Results: A 40-year-old man was admitted to our hospital because of inflammatory right elbow pain starting 2 months before without fever. The patient also complained of intermittent pains of lumbar spine and sacroiliac joints. The clinical examination evidenced general good state, right elbow arthritis and costosternal pain. Cutaneous examination showed palmoplantar pustulosis. Biological tests on admission showed an inflammatory syndrome: increased ESR and C-reactive protein level. Test for HLAB27 was positive. X-ray evidenced bilateral sacroiliitis, right elbow arthritis, radial extremity osteitis and sternoclavicular hyperostosis. Bone scintigraphy showed intensive uptake in right elbow, sternal manubrium and sacroiliac joints. The diagnosis of SAPHO syndrome was established. Treatment with methotrexate was initiated with a dramatic improvement of osteoarticular and cutaneous manifestations.

Conclusion: To date, SAPHO syndrome is considered a rare disease, but the real prevalence could be under estimated because of the confusing symptoms and the possible lack of skin lesions. When palmoplantar pustulosis is associated to articular manifestations, as in our patient, the differential diagnosis between psoriatic arthritis and SAPHO could be difficult because of clinical, radiological and histological similarities. In fact, asymmetric lesions, coarse syndesmophytosis, intermittent flares, and correlation with HLAB27 are all features of SAPHO but are common as well to psoriatic arthritis. However, distal interphalangeal, sausage like fingers, ocular lesions, destructive arthritis are not classically found in SAPHO. In our patient, thoracic involvement with hyperostosis and osteitis were against the diagnosis of psoriatic arthritis.

Disclosure of Interest: None declared.

P 012

Apremilast: pooled safety analysis of three phase 3, randomized, controlled trials in patients with psoriatic arthritis

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Introduction: Apremilast (APR), an oral small molecule specific inhibitor of phosphodiesterase 4, works intracellularly to modulate inflammatory mediators. The PALACE 1, 2, and 3 trials compared the efficacy and safety of APR versus placebo (PBO) in patients with active PsA despite prior DMARDs and/or biologics.

Objectives: The overall safety and tolerability of APR was assessed in a pooled analysis of the PBO-controlled phases of PALACE 1, 2, and 3.

Materials and Methods: Safety data was pooled from three phase 3, randomized, PBO-controlled, double-blind studies in which patients with active PsA despite DMARDs and/or biologics were randomized 1:1:1 to PBO, APR 20 mg BID (APR20), or APR 30 mg BID (APR30) stratified by baseline DMARD use. At week 16, patients with <20% reduction in swollen and tender joint counts were required to be re-randomized to APR20 or APR30 (early escape) if first randomized to the PBO group or remained on initial APR dose. Patients continued treatment through week 24. Stable concurrent DMARD therapy was allowed (MTX, sulfasalazine, leflunomide, or combination). The analysis comprises all data from the PBO-controlled periods (weeks 0 to ≤ 24).

Results: Thousand four hundred and ninety three patients were randomized to PBO (n = 495), APR20 (n = 501), or APR30 (n = 497) and included in the safety population. Baseline demographic and disease characteristics and prior and concurrent therapy were comparable across treatment groups; 22.4% had prior biologic exposure. Adverse events (AEs) occurred in 47.5% of patients receiving PBO, 61.5% of patients receiving APR20, and 60.8% of patients receiving APR30. AEs occurring in $\geq 5\%$ of any treatment group were diarrhea, nausea, headache, and URTI (Table 1); the majority occurred within the first 2 weeks of treatment and nearly half resolved within 2 weeks. Of patients with these AEs, the majority (93–96%) were mild or moderate in severity; discontinuation rates due to AEs were low (PBO, 4.2%; APR20, 5.6%; APR30, 7.2%). Serious AEs occurred in 3.8, 3.4, and 3.8% of PBO, APR20 and APR30 patients, respectively. One death occurred (APR20) due to multi-organ failure not suspected to be treatment-related. No cases of systemic opportunistic infections, lymphoma, vasculitis or reactivation/de novo TB were reported. There were no clinically meaningful differences between APR and PBO in terms of major adverse cardiovascular events, changes in blood pressure, malignancies, and clinically meaningful effects on laboratory measurements.

Table 1: AEs in $\geq 5\%$ of any treatment group

AE, n (%)	PBO (n = 495)	APR 20 mg BID (n = 501)	APR 30 mg BID (n = 497)
Diarrhea§	14 (2.8)	63 (12.6)	82 (16.5)
Nausea	23 (4.6)	50 (10.0)	80 (16.1)
Headache	23 (4.6)	42 (8.4)	57 (11.5)
Upper respiratory tract infection (URTI)	15 (3.0)	35 (7.0)	30 (6.0)

§Diarrhea includes loose stools and increased urgency and frequency of bowel movements.

Conclusion: APR was generally well tolerated with no new safety concerns identified compared with the known profile.

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HEALTH ECONOMICS OF PSORIASIS

P 013

Quality of life and health-state utilities in psoriasis patients at the National Skin Centre, Singapore

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Introduction: Psoriasis is a chronic skin disease affecting a significant proportion of our Singaporean population. Patients experience a wide range of symptoms which affect their lives, ranging from trivial problems to major handicaps. It is thus important for dermatologists to use Quality of Life (QOL) measurements to monitor the progress of psoriasis patients, as the QOL of such patients may be underestimated by objective assessments of clinical severity (e.g. the Psoriasis Area and Severity Index (PASI).

Objectives: In our study, we measured the quality of life of psoriasis patients using a general scale (SF-36), a disease-specific scale (Psoriasis Disability Index-PDI) and a visual analogue scale. Two health-state utilities, namely the time trade-off and willingness to pay indices, were assessed. Health-state utilities are important and sensitive indicators of QOL in patients with acute and chronic diseases, and are important to health economists for cost-utility analysis. The PASI score was also obtained. To assess the economic impact of the disease, patients were also asked about the amount of money spent over the past 6 months on the disease, and the number of days of absenteeism from work or school over the past 3 months.

Materials and Methods: As above.

Results: We recruited 254 patients, of which 70.6% patients were male and 29.4% were female, comprising 71.6% Chinese, 14.4% Malays, 12.6% Indians and 1.4% Eurasians. The average age was 49.4 years. 72.1% of patients had monthly income of less than $2000. The mean duration of disease was 13.6 years, with chronic plaque psoriasis (91.6%) being the most common clinical subtype.

Hypertension, hyperlipidaemia and diabetes mellitus were the most commonly found co-morbidities, occurring in 31.6%, 20.9%, and 19.1% of

patients respectively. Psoriatic skin lesions were present in areas unable to be concealed by clothing in almost all patients (98.1%), and arthropathy was present in almost a quarter (27.4%). Almost all the patients were on topical steroids, topical coal tar preparations and moisturizers. Other treatments received are as follows: methotrexate in 40.4% of patients, phototherapy 23.3%, acitretin 16.2%, cyclosporin 7.0%, and 5.1% biologic agents.
The mean PASI score was 14.79 and the mean PDI 9.35. The SF-36 assessment showed the lowest scores for the energy / fatigue levels and the general health category in our group of psoriasis patients. The average time-trade off was 3.74 years of life, with 6 patients willing to give up their entire lifespan for an immediate cure. The patients were willing to give up 34% of their income / savings, on average, for an immediate cure for their condition.
Conclusion: This study illustrates that psoriasis can significantly affect patients to the extent that they are willing to trade their years of life or income in search of a cure.
Disclosure of Interest: None declared.

PATIENT EDUCATION

P 014

Patient training for psoriasis-evaluation of a standardized program

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Introduction: Chronic skin diseases may have great impact on patients both physically and with regard to their quality of life. In addition to efficient drug treatment coping of patients is a major concern and needs professional educational support. Standardized training programs encompassing pathogenic and clinical as well as psychological aspects are well established for atopic dermatitis, are not available, however, for psoriasis yet.
Objectives: To evaluate effects of standardized patient training on individual knowledge, behavior and self expectation.
Materials and Methods: A 5 week 2 hour per week modular training covering medical, psychological, dietary and treatment issues has been followed up in 100 patients. Patients without training served as control group. Dermatological (PASI, DLQI) and psychological parameters (resilience, self expectation, behavior, knowledge) were monitored before, immediately after and 12 months after the training.
Results: Whereas the PASI was grossly unchanged before and after training, DLQI improved significantly from 8 to 4 points. General knowledge of psoriasis increased considerably resulting in a more self-assured relation to the skin disease.
Conclusion: Significant effects of a standardized and comprehensive training of patients could be shown and will improve the compliance during drug treatment as well as support a balanced cooperation of patients and their doctors.
Disclosure of Interest: None declared.

P 015

Prevalence of negative feelings and misconceptions about psoriasis in French population

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Introduction: Main factors underlying stigmatization of patients with psoriasis are negative feelings and misconceptions about the disease. Knowledge of psoriasis is challenging, and requires co-operation between patients, families, community, and health care providers.
Objectives: To assess the importance of misconception and negative feelings about psoriasis, in France.
Materials and Methods: A sample of 1005 people, representative of the French population aged over 18 and above and based on the quota method (sex, age, profession, region and type of agglomeration) was included in the survey. A photo of psoriasis lesion was presented to participants, in the course of the survey, enhancing undoubtability to ensure that the collected information would be founded. Participants had than to complete a questionnaire including questions on knowledge about psoriasis.
Results: Questions about attitudes toward people with psoriasis showed that, participants were reluctant to be friends with them (8%), to have lunch or dinner with an individual who has visible manifestation of psoriasis (18% and total objection 1%), to kiss a person with psoriasis (30% and total objection 4%), to shake hands (29% and total objection 2%) and to have sexual intercourse (44% and total objection 11%). Concerning feelings about psoriasis, the most common expressions are disgust (4%), stress (4%), rejection (2%), fear (2%) and shame (1%).
Conclusion: Lack of knowledge about psoriasis in France is alarming. Our study demonstrates the urgent need for more community dialogue, education and awareness about psoriasis and expresses the stigma that surrounds the disease. The importance of negative feelings and misconceptions about psoriasis are source of stigmatization and incorrect treatment of persons with psoriasis.
Disclosure of Interest: B. HALIOUA Consultant for: Leo Pharma France, A. MOTRUNICH Consultant for: Leo Pharma France, A. MAURY LE BRETON Employee of: Leo Pharma France, A. de FONTAUBERT Employee of: Leo Pharma France, F. MAUNOURY Consultant for: Leo Pharma France, M.-E. ROUSSEL Employee of: Leo Pharma France, F. DOGNIAUX: none declared, J.-F. STALDER Consultant for: Leo Pharma France.

PSORIASIS REGISTRIES

P 016

Serious infection events in the psoriasis longitudinal assessment and registry study: current status of observations

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Introduction: PSOLAR (**PSO**riasis **L**ongitudinal **A**ssessment **R**egistry) is a multicenter, prospective, longitudinal, 8 + yr, observational study of long-term safety and clinical outcomes for patients receiving(or eligible to receive) treatment for psoriasis with biologics and/or conventional systemic agents in academic and community-based settings.
Objectives: To report serious infection events observed in PSOLAR.
Materials and Methods: PSOLAR captures events following both near- and long-term exposure to systemic therapies. Safety observations for ustekinumab and infliximab exposed pts support sponsor regulatory commitments. Prevalence and incidence of serious infections in moderate to severe psoriasis populations using systemic immunomodulatory therapies are evaluated. The accrual of all serious infections reported in PSOLAR by exposure sub-grps, through Aug 23, 2011, are summarized.
Results: As of Aug 23, 2011, 9495 patients enrolled (13 733 cumulative patient-years).Unadjusted rates of serious infection, based on any exposure, varied across exposure grps (in order of event attribution):ustekinumab 0.60 events per 100 patients years of observation (PYO) [14 events/

2332PYO], anti-TNF sponsor biologics (infliximab, golimumab) 3.06 per 100PYO [66/2158], non-sponsor biologics (almost exclusively etanercept/adalimumab) 1.32 per 100PYO [85/6458], non-biologics 0.97 per 100 PYO [27/2784], and overall 1.40 [192/13733]. (Exposure definition: event counts add to the exposure grp that has the highest position in the order of attribution, before/at the time of the adverse event.) 57% of ustekinumab patients were exposed at/after entry into PSOLAR; thus the ustekinumab cohort represents a balance of new and prior/ongoing exposure to sample infection rates over varying levels of exposure. To better compare rates observed in pts with different exposure patterns, more infections events than currently available would be needed to undertake rigorous, comparative statistical analyses.

Limitations: Due to channeling of therapy, there are differences in subgrp characteristics (eg. more patients aged >65 years not exposed to biologics could influence the rate of serious infection, given the increased prevalence of infection in the elderly). Additional potential confounding considerations include arthritis and obesity, which tend to cluster with some product exposures. Any formal comparison will require statistical modeling to adjust for pt characteristics and risks, including consideration of multiple treatments.

Conclusion: These are preliminary observations and PSOLAR will follow pts for up to 8 years, providing more robust future results. Although the numbers of serious infection are modest at this time, initial rates help to define activity in a population without significant inclusion/exclusion criteria. PSOLAR represents a powerful resource for tracking population safety events of interest, among pts eligible to receive treatment with systemic therapies.

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P 017

Major adverse cardiovascular events in the psoriasis longitudinal assessment and registry study: current status of observations

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Introduction: While rates of cardiovascular events in psoriasis have previously been reported, a better understanding of the prevalence of these events in moderate to severe psoriasis populations, as well as the incidence on systemic immunomodulatory therapies, is a subject of interest.

Objectives: To report the accrual of major adverse cardiovascular events (MACE) reported in the Psoriasis Longitudinal Assessment and Registry (PSOLAR) study.

Materials and Methods: PSOLAR is a multicenter, longitudinal, observational study evaluating long-term safety and clinical outcomes for patients receiving (or eligible to receive) treatment for psoriasis with biologics and/or conventional systemic agents in academic and community practices. PSOLAR is designed to capture events following both near and long-term exposure to systemic therapies (safety observations for infliximab and ustekinumab support sponsor regulatory commitments). The accrual of MACE reported in the overall PSOLAR cohort and by exposure sub-groups through August 23, 2011 are identified. MACE events are defined as non-fatal cerebrovascular accident, confirmed non-fatal myocardial infarction, and cardiovascular death.

Results: As of August 23, 2011, 9495 patients had enrolled in PSOLAR (13 733 cumulative patient-years). Due to channeling of therapy, there are differences in subgroup characteristics. For example, there are more patients over the age of 65 years that have not been exposed to biologics. As such, any formal comparison will require statistical modeling to better adjust for patient characteristics and risk factors. The MACE rates for any exposure to the following were: sponsor biologics 0.20 events per 100 years of patient observation (PYO) (95% CI: 0.09, 0.38; 9/4490 PYO, three received only ustekinumab, four only infliximab and two both), non-sponsor biologics (almost exclusively etanercept and adalimumab) 0.31 per 100 PYO (95% CI: 0.19, 0.48; 20/6458 PYO), non-biologic therapy 0.76 per 100 PYO (95% CI: 0.47, 1.15; 21/2784 PYO) and overall 0.36 per 100 PYO (95% CI: 0.27, 0.48; 50/13733 PYO). Fifty seven percent of ustekinumab patients were exposed at or after entry into PSOLAR, representing a sizable subgroup starting therapy that may serve to help answer MACE questions longitudinally. In order to characterize "inception of therapy" event rates more MACE events would be needed to undertake rigorous statistical analysis.

Conclusion: These are preliminary results and PSOLAR will follow patients for up to 8 years, providing more robust results in the future. Although the numbers of MACE events are small, there does not seem to be a difference in MACE event rates linked to therapy with ustekinumab or infliximab based on currently available PSOLAR data. PSOLAR represents a powerful resource for tracking safety events of interest, such as MACE, among patients receiving treatment for moderate to severe psoriasis.

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P 018

PSOLAR: global update of a multicentre, open registry of psoriasis patients

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Introduction: PSOLAR (**PSO**riasis **L**ongitudinal **A**ssessment **R**egistry) is a multicenter, prospective, longitudinal, 8 + year, observational study of long-term safety and clinical outcomes for patients receiving (or eligible to receive) treatment for psoriasis with biologics and/or conventional systemic agents in academic and community-based settings.

Objectives: To determine the baseline characteristics of participants in the PSOLAR registry for patients with psoriasis who are candidates for systemic treatment. Baseline demographics of the enrolled cohort are presented here.

Materials and Methods: PSOLAR (PSOriasis Longitudinal Assessment Registry) is a multicenter, prospective, longitudinal, 8 + years, observational study in academic and community-based settings. Eligible patients are aged $\geq$ 18 years, have a diagnosis of psoriasis and are currently receiving or are candidates to receive systemic therapies for psoriasis. Demographics and medical/family history are collected at enrollment. Collections at 6 month intervals include: adverse events, disease activity, quality of life, economic status, healthcare utilization and interval therapies.

Results: International sites in North America and Europe recruited 9495 patients as of 23 August 2011. The baseline characteristics were as follows:

median age: 49.0 (range 18–100 yrs), 61.8% of patients $\geq$45 yrs, 54.5.0% male, 82.4% white, mean BMI 31.1 (SD7.3), disease duration of 17.4 yrs (SD 13.6 yrs) since diagnosis. Medical history includes: 38.8% cardiovascular disorders, 14.9% pulmonary disorders, 21.0% psychiatric disorders, 19.0% endocrine disorders, and 6.4% skin cancer. Infections requiring treatment in the last 3 years occurred in 26.0% of which 23.1% were bacterial infections. Mean BSA coverage at enrollment was 12.5% (SD18.0%), mean PGA 2 (SD1.2); 96.8% of patients presented with plaque type psoriasis. Medication (current and historical) included topicals (97.3%), phototherapy (54.8%), systemic steroids (24.6%), immunomodulators (46.2%), and biologics (78.7%).

Conclusion: As a disease directed registry, PSOLAR offers the ability to collect disease activity/outcomes associated with many therapies in actual clinical practice.

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PSORIASIS IN CHILDREN, PREGNANCY AND LACTATION

P 019

Childhood onset psoriasis and its duration: association with future cardiovascular and metabolic comorbidities

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Introduction: Psoriasis is associated with higher prevalences of cardiovascular and metabolic comorbidities in adults but the relationship of age of onset and those prevalences is unknown.

Objectives: To evaluate whether childhood onset of psoriasis (COP), and its duration are correlated with the frequencies of cardiovascular and metabolic comorbidities in adulthood.

Materials and Methods: This non-interventional, cross-sectional, multicenter study on adults with psoriasis was conducted in 29 dermatology centers in France. Data on sex, age at psoriasis onset and its clinical characteristics, and cardiovascular risk factors, including weight, body mass index, waist circumference, dyslipidemia, diabetes, hypertension, smoking, and personal/familial major adverse cardiovascular event (MACE) were systematically recorded.

Results: 201 psoriasis patients (male: 56.3%; mean age: 48.7 years; 24.8% with COP) were consecutively included in the study. Univariate analysis showed that COP was associated with lower frequencies of obesity, high waist circumference, diabetes, dyslipidemia, hypertension, familial cardiovascular disease, MACE, and metabolic syndrome, but more frequent active smoking. Short psoriasis duration was also associated with the latter. Psoriasis duration was not associated with these comorbidities.

Multivariate analysis retained sex, and age as being associated with cardiovascular and metabolic comorbidities frequencies, but not age at psoriasis onset. Psoriasis severity was associated with higher frequencies of obesity and psoriatic arthritis.

Conclusion: Our results showed that COP and its duration do not seem to be additional risk factors for higher frequencies of cardiovascular and metabolic comorbidities during adulthood.

Disclosure of Interest: None declared.

P 020

Psoriasifrom or psoriasic acral dermatitis among 43 cases of pediatric psoriasis

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Introduction: Psoriasifrom Acral Dermatitis PAD has been described by Zaias in 1980 reporting a psoriasiform dermatitis exclusively localised on the distal phalanges of fingers. It is associated to a shortening of the nail bed. The skin of the dorsum of fingers is sclerodermiforme and the palmar one is psoriasiform. In 1993, three cases were reported by Patrizi, with typical plaques of psoriasis on the legs. So he considered then PAD as a manifestation of psoriasis. He called it Psoriasic Acral Dermatitis. From 1980–1999, 10 cases were published, eight of them were children.

Objectives: The aim of our study was to look for this clinical presentation in our patients with pediatric psoriasis.

Materials and Methods: Retrospectively we reviewed all the cases of pediatric psoraisis registered in our external consultation from 2008–2013. The inclusion criteria: age< 16 ans, psoriasis diagnosis established in our department. We excluded those older than 16 years. The analysed data were: age, sexe, parental consanguinity, psoriasis in the family, age of onset of psoriasis, age at first examination, initial trigger, variation with seasons, fingers lesions, wich fingers, wich toes, plaques, guttata, arthritis.

Results: Forty three cases were retained. Sex ratio was 1,1 (21M/22F), 11 (25,5%) children were born from consanguinous parents. Familial psoriasis was noted in 17 cases (39.5%). In those familial cases 70.6% were related to the fathers family concerning the father himself in 29.4%. The mean age of onset was 3 years (3 months–14 years). Age at first examination varied from 9 months to 16 years (mean: 7 years). The initial trigger was stress with parents divorce for example. In 36 cases (83, 7%) improvement occurred in summer Fingers involvement concerned 20 cases (46.5%) at the opposite toes were involved in 11 cases (25.6%). Thumbs and first toes were never spared. Among the 20 cases with digital involvement, three had the other criteria of PAD. All three cases presented elsewhere typical psoriasis plaques.

Conclusion: In this study, sex ratio = 1 is similar to other studies. Digital lesions were the most frequent (46.5%) in this pediatric group while scalp lesions are the most frequent in adults. Stress was retained in a Californian study as the first trigger for initial episodes of psoriasis. Infections seem to be trigger for relapsing psoriasis. Thus PAD appears here as an aspect of digital psoriasis. So PAD is psoriasic acral dermatitis.

Disclosure of Interest: None declared.

P 021

Childhood psoriasis: a retrospective study of 174 cases

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Introduction: Psoriasis is a chronic, immune-mediated, inflammatory systemic disease with skin involvement. Both, genetic and environmental factors play a role in its development. For years, it has been considered an adulthood disease, but different publications show that 40% of patients began their symptoms during childhood.
Objectives: To describe the clinical and epidemiological data and therapeutic measures implemented in pediatric patients with psoriasis in two reference Medical Centers in our country.
Materials and Methods: Design.
Restrospective, descriptive, observational trial.
We reviewed the clinical records of pediatric patients (from birth to 18 years old) with Psoriasis diagnose, evaluated and diagnosed in the Pediatric Dermatology area of our Medical Centers from March 2003 to December 2012.
Results: One hundred seventy-four patients were included. The disease was more frequent in girls (2:1) and was mostly initiated during puberty (between 11 and 15 years old). Plaque psoriasis was the most frequent form of the disease. It was present in 109 patients (63%). It was followed by guttate psoriasis in a smaller number of patients (n:41; 24%). We could observe two special clinical types of the disease, a congenital form and a guttate lineal form. Family history of psoriasis was present in 37% of the cases. A triggering factor was identified in more than half of the cases. Infections, especially pharyngo-tonsilitis, were the predominant diagnosis. Topical therapy was of choice in 70% of the patients. Phototherapy was the election in other 27.5%, and only 2.5% required systemic treatment, being methotrexate the usual drug of choice.
Conclusion: Psoriasis affects children. As in adulthood, the predominant clinical presentation is the plaque form, although there are specific clinical variants in childhood. Multifactorial nature, including genetic and environmental factors, would explain the high percentage of familiar's history and its frequent onset after a triggering factor. Fortunately, most cases in kids can be treat with topical therapy or phototherapy. The use of systemic drugs is considered an extraordinary resource and was only needed in a few cases.
We present our experience in the diagnosis and treatment of childhood psoriasis. More studies are needed to define the real characteristics of this disease in infancy.
Disclosure of Interest: None declared.

DRUGS IN THE PIPELINE

P 022

Early clinical response predicts subsequent response in the treatment of moderate to severe plaque psoriasis in a phase 2 trial with ixekizumab (ly2439821)

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Introduction: Ixekizumab is a humanized anti-interleukin-17A monoclonal antibody in development for treating moderate to severe psoriasis.
Objectives: The objective of this analysis was to evaluate the early (week 4) response using the Psoriasis Area and Severity Index (PASI) that would predict subsequent response at week 12 after treatment with ixekizumab or placebo.
Materials and Methods: This post hoc analysis used data from a randomized double-blind placebo-controlled phase 2 clinical trial in patients with moderate to severe plaque psoriasis (n = 142) treated with either ixekizumab (different doses) or placebo SC. All treatments were combined for this analysis. Early response (the minimum% reduction in PASI) was evaluated from baseline to week 4. Subsequent response was defined as a $\geq$ 75% reduction in the PASI (PASI 75) from baseline to week 12. The association between early and subsequent response was evaluated using a receiver operating characteristic (ROC) curve. Sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) were evaluated for different% reductions in PASI (ranging from PASI 0 to PASI 100) at week 4 to determine the optimal minimum% reduction predictive of subsequent response at week 12 based on the Youden Index. Additional outcomes at weeks 8, 12, and 16 were compared between early responders and early non-responders. All analyses used logistic models for categorical variables and ANCOVA for continuous variables after adjusting for age, gender, race, geographic site, baseline BMI, baseline PASI score, disease duration, and treatment doses.
Results: A $\geq$ 50% reduction in PASI (PASI 50) at week 4 (early responder) was seen in 54% (n = 75) patients and was found to be optimal in predicting subsequent response with high overall sensitivity (83%), specificity (87%), PPV (90%), and NPV (77%).Significantly more patients achieved a PASI 90 or PASI 100 at week 12 among early responders than early non-responders ($p < 0.001$). Compared to early non-responders, early responders had a significantly greater improvement ($p < 0.05$) in static Physician's Global Assessment (sPGA), itching severity visual analog scale, and Dermatology Life Quality Index (DLQI) scores at week 8, 12, and 16. A sensitivity analysis combining patients from the ixekizumab 75 mg and 150 mg treatment arms produced similar findings to the overall analysis.
Conclusion: Early PASI 50 response at week 4 predicted subsequent PASI 75 response in patients with moderate to severe plaque psoriasis with high degrees of sensitivity, specificity, PPV and NPV in a phase 2 study of ixekizumab. Additionally, early responders experienced significant improvements in other clinical and health outcomes at weeks 8, 12, and 16 compared with early non-responders. Early response may help clinicians evaluate the potential benefit profile of long-term treatment with ixekizumab.
Disclosure of Interest: B. Zhu Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, E. Edson-Heredia Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, G. Cameron Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, W. Shen Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, J. Erickson Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, D. Shrom Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, S. Banerjee Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company.

P 023

Efficacy of aganirsen, an insulin receptor substrate-1 antisense oligonucleotide, in the treatment of mild to moderate plaque psoriasis: a randomised, double blind exploratory study

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Introduction: Increased inflammation, aberrant angiogenesis and vascular remodelling as well as keratinocyte hyper-proliferation have all been shown to contribute to the pathogenesis of psoriasis. Vascular endothelial growth factor (VEGF), which promotes angiogenesis, has a crucial role in the disease development. We have previously shown that aganirsen, an antisense oligonucleotide, which inhibits the expression of insulin receptor

substrate-1 (IRS-1), down-regulates VEGF expression and has potent anti-angiogenic effects *in vivo*. Given the dual role of VEGF in angiogenesis and inflammation, we reasoned that aganirsen could be used to treat psoriasis.
Objectives: To evaluate the safety and efficacy of aganirsen for psoriasis treatment in a double blind, placebo-controlled trial involving 12 patients with plaque psoriasis who received topical applications of 0.86 and 1.72 mg/g of aganirsen or placebo over 6 weeks.
Materials and Methods: Medical evaluation was performed at 3 and 6 weeks. After 6 weeks, skin biopsies were collected from a predefined selection of 3 patients in healthy skin, placebo-treated psoriatic lesion and 0.86 mg/g-treated lesions. Expression of markers was performed by immunohistochemistry in triplicate and repeated in three independent series of experiments by two blinded operators.
Results: We show that topical application of aganirsen improved the clinical symptoms of psoriasis compared to placebo. Aganirsen significantly ($p < 0.05$) reduced lesion size after 6 weeks of treatment; least square means (LSMeans) differences with placebo were −38.9% (95%CI [−75.8%; −2.0%]) and −37.4% [−74.3%; −0.5%] for the 0.86 mg/g and 1.72 mg/g groups, respectively. The reduction of lesion area induced by aganirsen was evidenced ($p < 0.01$) as soon as after 3 weeks of treatment. In skin biopsies, we first validated that aganirsen treatment potently inhibited its target IRS-1 (−73 ± 25%; $p = 0.0095$). Our results suggest that agarnirsen inhibited keratinocyte proliferation as shown by the reduced expression of Ki67 (−56 ± 3%; $p = 0.0002$) and CK16 (−46 ± 8%; $p = 0.0265$) in the lesions. This effect of aganirsen was associated with an elevated reduction in tumour necrosis factor-α (−86 ± 15%; $p < 0.0001$) and VEGF expression (−45 ± 18%; $p = 0.0159$). Furthermore, psoriatic lesions contained 62 ± 20% more $CD4^+$ ($p = 0.024$) and 146 ± 59% more $CD3^+$ ($p = 0.022$) lymphocytes than healthy skin biopsy samples. Aganirsen restored normal levels of $CD4^+$ (−39 ± 14%; $p = 0.0102$) and $CD3^+$(−58 ± 23%; $p = 0.019$) lymphocytes in psoriatic skin lesions compared to placebo-treated lesions.
Conclusion: We suggest that the combined anti-angiogenic and anti-inflammatory activity of aganirsen are likely responsible for its beneficial effects. Further large-scale studies are now required to establish the long-term efficacy of aganirsen in patients with psoriasis.
Disclosure of Interest: S. Colin Shareholder of: Gene Signal, Employee of: Gene Signal, B. Darné: none declared, A. Kadi: none declared, A. Ferry Shareholder of: Gene Signal, M. Favier: none declared, C. Lesaffre: none declared, J.-P. Conduzorgues: none declared, S. Al-Mahmood Shareholder of: Gene Signal, Employee of: Gene Signal, E. Thorin Shareholder of: Gene Signal, Consultant for: Gene Signal, N. Doss: none declared.

BIOLOGICS

P 024
Paradoxical psoriasis induced by tumor necrosis factor-alpha: our experience

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Introduction: Tumor necrosis factor antagonists have shown excellent efficacy in psoriatic skin disease treatment, however the induction of paradoxical psoriasis as an adverse event is well known. We define as paradoxical psoriasis the new-onset psoriasis, change of type of presentation in cutaneous lesions or the worsening of established psoriasis clearly related to therapy.
Objectives: To describe 11 cases of paradoxical psoriasis in patients with different biologic therapies.
Materials and Methods: We review the clinical records of the patients with suspected paradoxical psoriasis who attended the biologic therapy clinic and the interdisciplinary psoriatic arthritis clinic during 2011 and 2012 and we analyzed the clinical data, the characteristics of the lesions, its severity and the treatment modification if it was necessary to control the disease.
Results: Three hundred and seventy two patients were followed up in the biologic therapy clinic and 152 in the psoriatic arthritis clinic in these 2 years. 11 patients fulfilled the paradoxical psoriasis criteria shown previously. They were six female and five male patients aged from 34 to 78 years (mean age 47 years). Seven cases had not presented previous psoriasis lesions; five had the diagnosis of Ankylosing spondylitis, one with established rheumatoid arthritis and one with juvenile idiopathic arthritis. The remaining four had psoriatic arthritis with mixed involvement. Two with palmo-plantar and two with plaque psoriasis as cutaneous presentation. The anti TNF therapy associated was Adalimumab in seven cases, Infliximab in two cases and Etanercept in two cases. The onset of the paradoxical effect occurred between 2 and 44 months after the beginning of the therapy (mean time of onset 12 months). Two patients presented annular scaly lesions that were confirmed as psoriasis by biopsy. Palmoplantar pustulosis appeared in seven cases, inverse psoriasis in four, scalp involvement in four, and six in plaques. Seven developed multiple psoriatic morphologies. The lesion was considered mild in three cases, treated topically, and moderate-severe with discontinuation of treatment in six cases (in another the dose was reduced). Among these, another biologic was started in four (three anti TNF and one Ustekinumab) without cutaneous complications. The skin evolution was satisfactory, with clinical improvement in all cases, and disease remission in 2 patients.
Conclusion: Paradoxical psoriasis is a complication observed in less than 3% of our patients in Biologic therapy. Despite the fact it could present in patients with any diagnosis and with any anti TNF treatment, apparently it is more frequent in patients with spondyloarthropathies, and treated with antibodies. It could be a serious and disabling condition, nevertheless the withdrawal of the therapy is not usually necessary. The change to another anti TNF appears to be safety.
Disclosure of Interest: None declared.

P 025
Evaluation of the impact of body weight on the efficacy of biologic therapies for the treatment of psoriasis: a dose-response meta-analysis

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Introduction: The efficacy of different biopharmaceutical treatments for psoriasis can be compared on the basis of their dose-response relationships using model-based meta-analysis (MBMA). MBMA affords the benefit of generating model predictions for treatment effect across the dose-range supported by the totality of data, enabling otherwise unachievable comparisons between therapies.
Objectives: (a) Characterise the dose-response relationship for Psoriasis Area and Severity Index (PASI) for biologics (approved and in development) used in psoriasis patients (pts); (b) quantify the impact of pt characteristics, especially body weight, on PASI response.
Materials and Methods: Thirty two randomised controlled trials ($\geq$10 weeks' duration) reporting PASI50, 75, 90, and 100 responses at the primary time point were selected for a MBMA. The joint model for PASI endpoints modelled the probability of a pt having a successful outcome and included a placebo (PBO) effect, a treatment effect and trial-specific random effects on the model parameters. Treatment effect was described by a sigmoidal-E_{max} model with a different maximal effect (E_{max}) for each drug class, and PASI endpoint and different potency (ED_{50}) for every drug within

class. Body weight, baseline PASI, age, sex, race, disease duration and prior biologic use were evaluated as covariates impacting treatment effect (active vs PBO). The analysis relied on the assumption that odds-ratio for treatment effect was independent of the inter-trial variation in PBO response.

Results: Dose-response relationship for PASI endpoints was quantified for biologics, approved (infliximab, ustekinumab, adalimumab, etanercept, alefacept) and in development (certolizumab, briakinumab, brodalumab and ixekizumab), using a sigmoidal E_{max} model. Treatment effect was not impacted by the pt specific factors evaluated. There was no significant and clinically meaningful global effect of body weight on the E_{max} or ED_{50} across all drugs. However, there was a significant effect ($p < 0.001$) of body weight on the PBO response. Although body weight had no effect on the odds-ratio of active versus control, it impacted the absolute difference in percentage of responders (Δ) between active and control (e.g. PASI75 Δ of 60% in an 80 kg pt would reduce to 54% for a 100 kg pt and 47% for a 120 kg pt).

Conclusion: Body weight showed a clinically important impact on absolute difference from PBO in percent responders that could be due to its impact on PBO response. A higher dose in heavier pts may be beneficial, depending on whether the clinical dose effects are greater or less than the effects at estimated ED_{50} for that biologic. Heavier pts may benefit by upward dose modifications for approved biologics; this may also be an important consideration in drug development.

Disclosure of Interest: J. Mandema Consultant for: Pfizer Inc, M. Peterson Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, S. Ahadieh Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, H. Tan Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, S. Krishnaswami Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, R. Wolk Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, P. Gupta Shareholder of: Pfizer Inc, Employee of: Pfizer Inc.

EPIDEMIOLOGY MEETS PRACTICE IN PSORIASIS MANAGEMENT

P 026

Patient reported priorities for comparative effectiveness research in psoriasis

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Introduction: Comparative effectiveness of psoriasis therapies under real world conditions is critical to help guide physicians' and patients' treatment choices. The involvement of patient stakeholders is particularly important in order to identify their treatment preferences and priorities for treatment comparisons so that relevant comparative effectiveness studies may be designed.

Objectives: To identify psoriasis patients' willingness to participate in comparative effectiveness studies and their preferences for therapies to include in head-to-head comparative studies.

Materials and Methods: We conducted an electronic survey of National Psoriasis Foundation members with registered e-mail addresses (52 230 e-mails delivered) as part of a larger survey of psoriasis patient treatment preferences. The inclusion criteria for the survey were age of at least 18 years and a self-reported diagnosis of psoriasis by a health care provider.

Results: A preliminary analysis was performed at 1 week after the survey was opened and included 1161 respondents who met the survey inclusion criteria. Basic patient demographics showed a median age of 51 years (interquartile range 38–60), 335 (28.9%) males and 866 (86.7%) Caucasians. Psoriasis characteristics included 177 (15.3%) with none or very little, 315 (27.3%) with mild (1–2% body surface area; BSA), 453 (39.0%) with moderate (3–10% BSA), and 210 (18.2%) with severe (>10% BSA) disease with the remaining 4 (0.3%) indicating that disease severity was unknown. Diagnosis of psoriatic arthritis by a health care provider was self-reported in 520 (44.8%) patients. Analysis of therapy preferences showed home-based phototherapy (62.3%; 95% confidence interval 59.3% > 65.3%) to be the most preferred therapy (n = 1,027) followed in decreasing order by office-based phototherapy (29.6%; 95% CI 26.8% > 32.5%), etanercept (21.7%; 95% CI 19.2% > 24.4%), adalimumab (20.9%; 95% CI 18.5% > 23.6), ustekinumab (16.2%; 95% CI 14.0% > 18.6%), methotrexate (15.7%; 95% CI 13.5% > 18.0%), acitretin (9.0%; 95% CI 7.3% > 10.9%), cyclosporine (8.6%; 95% CI 6.9% > 10.5%), and infliximab (7.6%; 95% CI 6.0% > 9.4%) (χ^2, $p < 0.001$). Nearly half (47.4%; 95% CI 44.3% > 50.6%) of psoriasis patients expressed willingness to participate in a comparative effectiveness study. Of the therapy choices offered for inclusion in a comparative effectiveness study, home-based versus office-based phototherapy (29.4%; 95% CI 26.6% > 32.3%; n = 1008) was the most frequently chosen combination for comparison followed by etanercept versus adalimumab (12.7%; 95% CI 10.7% > 14.9).

Conclusion: Despite many new therapy options for psoriasis, phototherapy remains a preferred treatment among psoriasis patients. Furthermore, home- versus office-based phototherapy appears to be a patient priority for future comparative effectiveness studies.

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P 027

Biologic therapies in the treatment of psoriasis: their association with the development of specific inflammatory comorbid conditions among a cohort of the Newfoundland and Labrador population

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Introduction: This is a retrospective cohort study investigating the association between particular inflammatory conditions including uveitis, ankylosing spondylitis, psoriatic arthritis, Crohn's disease, ulcerative colitis, myocardial infarction and stroke and treatment type received (biologics versus non-biologics). We hypothesize that a decreased frequency of such inflammatory conditions will be seen in psoriasis patients receiving biologic therapy.

Objectives: The Objectives:of this study are to determine frequency of specific inflammatory conditions including uveitis, ankylosing spondylitis, psoriatic arthritis, Crohn's disease, and ulcerative colitis in patients with psoriasis who were treated with biologic therapies compared to those patients treated with non-biologic therapies. To describe the distribution of psoriasis patients by gender, disease severity (mild or moderate to severe), and where applicable biologic treatment class, (T-cell inhibitors, TNF-alpha inhibitors, IL-12/23 inhibitors, peptide T, etc.) to determine the odds ratio of developing the above inflammatory conditions based on treatment type received, i.e. biologics versus non-biologics (after adjusting for age, gender and disease severity).

Materials and Methods: Because biologics are targeted to reduce chronic inflammation of psoriasis, it follows that they might also have an impact on inflammation in the eye, joints, bowel and coronary arteries. A retrospective cohort study linking medical records of over 10 000 confirmed cases of

psoriasis who have received either biologic or non biologic treatment. Cases come from a private dermatology clinic in St. John's (NewLab Life Sciences Inc.), as well as administrative health databases of the Newfoundland and Labrador Centre for Health Information, St. John's, Newfoundland and Labrador.

Results: In all, 189 males and 127 females with a mean age of 51.3, the majority of which had moderate to severe psoriasis, were included in the cohort. Before the age of 25, 56.7% had age of onset. A statistically significant difference ($p < 0.05$) was found between biologic patients and non-biologic patients with respect to ankylosing spondylitis, psoriatic arthritis, and ulcerative colitis with biologic patients having a higher occurrence in each. Crohn's and ulcerative colitis being the most common inflammatory condition identified. Psoriatic arthritis is found to be eight times greater in psoriasis patients taking biologics versus non-biologics. Ankylosing spondylitis was found to be four times greater in psoriasis patients taking biologics versus non-biologics.

Conclusion: In this cohort of 229 biologic patients significantly higher rates of ankylosing spondylitis, psoriatic arthritis, and inflammatory bowel disease were noted.

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P 028

Risk of developing cancer among psoriasis patients as compared to non-psoriasis patients

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Introduction: In this descriptive study, we assessed whether or not there is an increased risk of developing cancer among psoriasis patients as compared to non-psoriasis patients. We did this by assessing psoriasis patients' health care utilization in terms of hospital visits and fee-for-service physician visits, and compared such with non-psoriasis patients (controls).

Research also indicates age, gender and psoriasis severity has an impact on risk of cancer; therefore, we will provide descriptive analysis with such demographic factors. Descriptive study involved linking medical records of 10 000 confirmed cases of psoriasis who have received either biologic or non biologic treatment. Data obtained from a private dermatology clinic as well as administrative data bases using the unique identifier, Newfoundland and Labrador Medical Care Plan (MCP).

Objectives: The objective of this study was to assess whether or not psoriasis patients specifically have an increased risk of developing cancer as compared to non-psoriasis patients.

Materials and Methods: This descriptive study will involve linking medical records of confirmed cases of psoriasis patients obtained from a private dermatology clinic in St. John's (NewLab Life Sciences Inc.), to administrative health databases to obtain patients' conditions. Data linkage will be performed using Medical Care Plan (MCP) number. The following data sources will be linked through a multi-step data linkage process: The NewLab Biologics Treatment Database (1999–2011); The Clinical Database Management System (CDMS; hospital separation database) (1995/96–2009/10); The Newfoundland and Labrador Medical Care Plan (MCP) fee-for-service physician claims database (FFS) (1995/96–2009/10).

Results: Results of the 3289 patients in the cohort, 232 developed some form of cancer. Cumulative incidence rates were 587.8 for the group, higher in males at 752.9/100 000 versus females at 430.5. No difference between mild or moderate psoriasis. Patients with age of onset less than 25 years had much lower rates at 286.0 versus 888.1/100 000. Patients with early age of onset were less likely to develop non-melanoma skin cancer, prostate cancer and breast cancer. Cumulative incidence rates were lower for colorectal cancer in patients with mild psoriasis while cumulative incident rates of prostate cancer were lower in patients with moderate to severe psoriasis.

Conclusion: In this cohort of 3289 psoriasis patients, gender, age of onset and severity of psoriasis did influence cumulative incidence rates and types of cancers seen.

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HOW WOULD I TREAT IT?

P 029

Maintenance therapy with granulocyte/monocyte adsorption apheresis for generalized pustular psoriasis

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Introduction: Generalized pustular psoriasis (GPP) is one of the neutrophilic dermatoses: an intractable skin disease which forms the erythema and pustules on the whole body with fever. Granulocyte/monocyte adsorption apheresis (GMA) is widely accepted to be a therapeutic approach against inflammatory bowel diseases. A few studies have recently shown excellent effects of GMA on various skin diseases including GPP, Behçet's disease, and pyoderma gangrenosum. However, there is no report of maintenance therapy with GMA for GPP.

Objectives: We have three GPP patients who received two or three courses of GMA. The objective of this study is to evaluate whether GMA is useful as a maintenance therapy for GPP.

Materials and Methods: We used G-1 column (JIMURO Co. Japan), which was filled with specially designed cellulose acetate beads as adsorptive carriers to remove most granulocytes, monocytes/macrophages and a small fraction of lymphocytes from the peripheral blood.

Extracorporeal circulation using G-1 column at 30 ml per minute was performed for 1 hour. The patients received GMA therapy weekly for 5 weeks as 1 course, and we assessed the effects of this treatment after 2 weeks from the last GMA. Patient 1 is a 31-year-old woman with GPP and desires a pregnancy. She had been treated with oral administration of cyclosporine (Cys) and topical treatments of steroid and vitamin D3. After the dose of Cys was reduced, her skin eruption exacerbated. Patient 2 is a 61-year-old woman suffered from GPP for 40 years. Her symptoms exacerbated every summer. She had been treated with etretinate (ETN) 10 mg/day. Patient 3 is a 63-year-old man suffered from GPP for 29 years. Since squamous cell carcinoma was found on his skin of scrotum, he wanted to change the treatment from Cys to the others.

Results: Patient 1 received 2 courses of GMA. The first course decreased pustules and edematous erythema. However, the skin eruption, which was milder than before, sometimes appeared after the first course. The effects of GMA lasted for a half year. The second course was performed, and the effects lasted for 11 months. Patient 2 also received two courses of GMA. After the first course, the clinical symptoms gradually improved, and the skin eruption diminished at the end of the first course. In addition, the dose of ETN could be reduced from 10–3.3 mg/day. Her skin eruption disappeared, and she had no recurrence for 6 months. The effects of GMA lasted

for 1 year, and she received the second course. Patient 3 received three courses of GMA. GMA showed remarkable effects on edema and pustules and the effects lasted for 9 months after the first course. Since erythema, edema and pustules appeared again, we performed the second and the third courses of GMA. His symptoms gradually improved.
Conclusion: The effects of GMA therapy lasted from a half to one year. GMA is one of the useful, particularly for a recurrence of GPP, because GMA shows a few adverse effects.
Disclosure of Interest: None declared.

P 030

Geographic tongue or oral psoriasis?

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Introduction: Psoriasis is a common chronic inflammatory cutaneous disease, affecting 1–3% of the world population. The occurrence of oral lesions is uncommon and has been a subject of controversy. Geographic tongue (GT) is most frequent lesions in psoriatic patients and exhibit clinical, histological and genetics patterns similar to psoriasis, suggesting that this lesion may represent an oral manifestation of psoriasis.
Objectives: The aim of this study was to analyze the association between geographic tongue and psoriasis, through histopathological and immunohistochemical methods.
Materials and Methods: Psoriatic patients (PP) and patients with GT treated at the Brazilian Dermatology and Oral Medicine Services were included in this study. GT biopsy fragments of eight PP and non-psoriatic patients, and four skin biopsy fragments from PP were selected. The material was stained with hematoxylin-eosin and tested by immunohistochemistry using anti-CD4, CD8, CD20, CD68, S100 and Ki-67 antibodies. The tissue sections were scanned using a high resolution digital scanner with 20 × objective lens (ScanScopeTM XT, Aperio Technologies, CA, USA). Positivity index (PI) - positive area/total area-was calculated for each immunohistochemical using the positive pixel count or nuclear algorithm in ImageScopeTM software.
Results: The sample consisted of 20 cases, 8 (38%) of GT in non-psoriatic patients (GT-NPP), 8 (38%) of geographic tongue in psoriatic patients (GT-PP) and 4 (19%) psoriatics cutaneous lesions (PC). The histopathological findings were similar in cases of psoriasis and GT; and the parakeratosis, epithelial hypoplasia suprapapillary, crests in a club, and exocytosis were the most prevalent. The pustule of Kogoj was common in GT, particularly in patients with pustular psoriasis. Immunohistochemistry revealed a predominant T-cell subepithelial infiltrate. Most of the T-cells were CD4-positive and developed a subepithelial and epithelial basal layer band of inflammatory infiltrate. T CD8 lymphocytes were scarce and localized predominantly at the basal epithelial layer and at the epithelial-connective tissue junction. Very few CD20 lymphocytes were observed. Macrophages CD68 + were abundantly observed in the three groups, followed by Langerhans cells. There was a balance between the proliferative activity and squamous cell differentiation through the moderate increase of positively stained nuclei of basal and parabasal keratinocytes in all groups, as confirmed by Ki-67 expression. There was no statistically significant difference among the groups and the antibodies used.
Conclusion: Histopathological and immunohistochemistry findings are similar in psoriasis and GT, supporting the hypothesis that GT can be an oral manifestation of psoriasis. In addition, the pustules of Kogoj are common in GT, particularly in patients with pustular psoriasis, reinforcing the association of GT with pustular psoriasis.
Disclosure of Interest: None declared.

P 031

Generalized pustular psoriasis: clinical and genetic study of 21 Tunisian cases

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Introduction: Generalized pustular psoriasis (GPP) is a life threatening disease belonging to the auto-inflammatory group diseases.
Objectives: To report clinical features and pathogenesis of GPP in a homogeneous population from southern Tunisia.
Materials and Methods: Following our first reported cases of GPP induced by IL36RN mutation, we describe, in a retrospective study, complementary cases from the same Tunisian area and report clinical and genetic data of 21 cases of familial GPP originated from southern area in Tunisia. Clinical features and data are reported (Age, gender, treatment, age at onset of GPP, triggering factors).
Results: All families showed various degrees of consanguinity. The pattern of inheritance was consistent with autosomal recessive disease. All affected persons fulfilled the clinical and biologic criteria for generalized pustular psoriasis defined by repeated flares of sudden onset. Disease developed in 15 of the affected persons during childhood. Flares were associated with viral or bacterial infections, withdrawal of retinoid therapy, menstruation, and pregnancy. Homozygosity mapping and direct sequencing led to the evidence that psoriasis could be considered as a monogenic disease. We demonstrated that our reported GPP cases were induced by mutation in *IL36RN* gene that led to a deficient interleukin-36Ra, a natural antagonist of three cytokines belonging to the interleukin-1 family—interleukin-36α, interleukin-36β, and interleukin-36γ.
Conclusion: Our study showed that GPP is an auto-inflammatory disease secondary to deficient regulatory mechanism of inflammation.
Disclosure of Interest: None declared.

ADVANCEMENTS IN PHOTOTHERAPY

P 032

Efficacy, safety and dosage of fumaric acid esters in combination with phototherapy in patients with moderate to severe plaque-type psoriasis

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Introduction: Fumaric acid esters (FAE), approved as Fumaderm® and recommended for long-term therapy of adult patients with moderate to severe psoriasis, are one of the most frequently prescribed systemic drugs for psoriasis in Germany. Combination of FAE with phototherapy (PT) is common; however, only results from a small pilot study were published to date.
Objectives: This real life data collection was performed to evaluate the efficacy, safety and dosage of FAE in combination with PT.
Materials and Methods: In this multicenter, prospective, non-interventional trial adult patients with moderate to severe psoriasis receiving a FAE / PT combination treatment were followed over 12 months. Data analysis included clinical efficacy parameters such as PGA (Physician's Global Assessment), PASI (Psoriasis Area and Severity Index), DLQI (Dermatology

Life Quality Index), EQ-5D (Euro Quality of Life), as well as FAE and PT treatment parameters and adverse events (AEs). FAE dosage and PASI responses were compared with data from a previous retrospective study with FAE monotherapy (FUTURE)[1].

Results: Three hundred and sixty three patients from 155 German dermatology centers with combined FAE / PT therapy were analysed. The mean daily dose of FAE was 2.6 tablets in the maintenance period.

The most frequent PT was UVB Broadband (42%). Mean overall treatment duration of PT was 116 days, in 58% of the patients PT was applied for less than 3 months.

PGA, PASI, DLQI and EQ-5D values improved substantially over 12 months. PGA ≤ 1 was achieved by 55% after 3 months and 78% after 12 months. The mean PASI improved by 46% after 3 months (18.5 at baseline to 8.7) and by 72% after 12 months (to 5.1). Overall, 54.7% of patients achieved a PASI 75 response. The mean DLQI decreased from 12 at baseline to 3.4 after 12 months (−66%); 73.3% of the patients achieved a DLQI reduction of at least five points. No major differences between different PT modalities were observed.

Twenty seven patients (7%) with FAE / PT combination therapy had at least one AE of which the majority were classified as treatment-related. Three patients (1%) had a serious adverse event (SAE), none of which was classified as related to treatment.

The mean daily FAE dose with any PT combination was lower than in the FUTURE data set (2.6 tablets vs. 2.9 tablets); the mean PASI improvement after 3 months was more pronounced (46% vs. 38.81%).

Conclusion: This study indicates that FAE in combination with phototherapy in patients with moderate to severe psoriasis is effective and well-tolerated. The combination may allow a lower FAE dosage and lead to a faster treatment response. Long-term skin cancer data for FAE / PT combination therapy is not available.

Disclosure of Interest: K. Reich Speaker bureau of: Abbott, Biogen Idec, Celgene, Centocor, Janssen-Cilag, Leo, Medac, MSD (formerly Essex, Schering-Plough), Novartis, Pfizer (formerly Wyeth, Grant/Research Support from: Abbott, Biogen Idec, Celgene, Centocor, Janssen-Cilag, Leo, Medac, MSD (formerly Essex, Schering-Plough), Novartis, Pfizer (formerly Wyeth, Consultant for: Abbott, Biogen Idec, Celgene, Centocor, Janssen-Cilag, Leo, Medac, MSD (formerly Essex, Schering-Plough), Novartis, Pfizer (formerly Wyeth, B. Braeu: none declared, K. Merten Employee of: Biogen Idec GmbH, W. Griemberg: none declared.

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Reference:

1. Reich et al. JDDG 2009;7:603-611.

P 033

Is basic fibroblast growth factor a mediator through which ultraviolet radiation induces foxp3 + regulatory t cells in psoriasis?

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Introduction: Forkhead box P3 (FOXP3) is a key transcription factor in regulatory T cells. The promotion of FOXP3 + regulatory T cells by ultraviolet radiation (UVR) in psoriasis has been suggested by previous studies. But the exact mediator linking them has not been identified.

Objectives: The aim is to find out the possible mediator through which UVR upregulates FOXP3 + regulatory T cells in psoriasis.

Materials and Methods: In the present study, we mainly utilized cell culture, ELISA, and Western blot methods.

Results: We found that the co-culture of keratinocytes and MT2 cells (human leukemia cell line) could increase FOXP3 expression in the later. Next, we found the supernatant of cultured keratinocytes showed similar effect on FOXP3 expression in MT2 cells and this effect could be amplified if the keratinocytes was pre-irradiated by UVR. This observation suggested some cytokine(s) in keratinocyte supernatant might play vital roles in promoting FOXP3 expression and the secretion of the cytokine(s) should be regulated by UVR. In the following study, we investigated the involvement of the candidate cytokine(s). We found that UVR could increase the secretion of basic fibroblast growth factor (bFGF) by keratinocytes. In addition, the addition of bFGF into the culture of MT2 cells could increase the expression of FOXP3 in a dose-dependent manner.

Conclusion: These results showed bFGF was such a cytokine in keratinocyte supernatant that could upregulate FOXP3 expression in MT2 cells. Our study suggests bFGF is a mediator through which UVR induces FOXP3 + regulatory T cells in psoriasis. This Conclusion needs further confirmation in psoriatic patients.

Disclosure of Interest: None declared.

P 034

Combined climatotherapy on the black sea compared to narrow band UVB therapy for treatment of psoriasis

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Introduction: The combined climatotherapy combines spa therapy, thalassotherapy and peloidotherapy.

Objectives: This study tends to prove that the combination of those natural factors can be a valuable alternative to phototherapy for treating different forms of psoriasis.

Materials and Methods: The authors performed a comparative study using a regimen for the psoriasis patients with increasing daily sunlight exposure, seawater baths, showers with sulfurous mineral water and daily application of mud from the liman lake of Tuzlata. This treatment was used for 54 patients with psoriasis for 14 days and the results were compared to the results of 20 applications of Narrow band UVB for 31 patients using the PASI score for evaluation. Both groups of patients recieved emollients during the treatment.

Results: The PASI score was measured at the first day of the climatotherapy and on the 14th day of therapy as well as on the first application of narrow band UVB and on the 20th procedure. The mean decrease of the PASI score in patients with climatotherapy was 65, 78% and for the patients on narrow band UVB the mean decrease of the PASI was 72, 26%. After evaluation of the results we found that there is no significant statistical difference between the two types of treatments ($p = 0.266$).

Conclusion: No significant difference was found between the two types of treatments. Even though the patients were more satisfied with the climatotherapy as well as the period of remission was longer with the patients on climatotherapy. That is why we present the climatotherapy as a valuable alternative of the phototherapy.

Disclosure of Interest: None declared.

TRIGGERING PSORIASIS RECENT DEVELOPMENTS IN UNDERSTANDING MECHANISMS

P 035

Evaluation of risk factors for body weight gain in psoriatic patients on infliximab: a multicentre, cross-sectional study

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Introduction: A significant weight gain has been reported in patients with psoriasis treated with anti-tumour necrosis factor-alpha agents. Among these patients, there are contradictory results about risk factors for weight gain.

Objectives: Assessing risk factors for weight gain in psoriatic patients on infliximab (IFX).

Materials and Methods: This study was a 4-month, non-interventional, cross-sectional, multicentre study on adults with psoriasis performed in 19 French dermatological centres. All the patients who received IFX for at least 1 year were prospectively included, with retrospective analysis of data. Impact of sex, age, severity of the disease, cardiovascular and metabolic comorbidities, and previous and simultaneous systemic treatments on weight changes, was analysed. Weight gain was defined as an increment of more than 2% of baseline weight.

Results: Overall, 191 psoriatic patients (males: 68.6%; mean age: 46.9 years) were included. Mean weight gain was 1.6 kg (2.1%) after 1 year of IFX. Half (48.2%) suffered from a weight gain, and 9.9% from a weight increment of 10% or more. Baseline weight and Body Mass Index, and cardiovascular and metabolic comorbidities did not influence weight. Men ($p = 0.007$) and patients with severe psoriasis (BSA, $p = 0.005$) had a tendency to put on weight. Patients with a hospital dietary follow-up ($p = 0.01$; OR = 0.36 [0.16–0.79]) and patients on methotrexate ($p = 0.03$; OR = 0.41 [0.18–0.93]) during IFX treatment are thinner, in a multivariate analysis.

Conclusion: Severe weight increment is frequent on IFX treatment, mainly in men, and patients with severe psoriasis. Dietary follow-up or simultaneous use of methotrexate could limit this weight increment.

Disclosure of Interest: None declared.

P 036

"Pro-osteoclastogenesis march" is induced by cutaneous pro-inflammatory mediators

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Introduction: Psoriasis (Ps) and psoriatic arthritis (PsA) are inter-related diseases. Up to 30% of Ps patients also develop PsA and in approximately 80% of cases, arthritis follows Ps by a mean of 10 years. In PsA extensive cartilage and bone erosion are found, in fact, osteoclasts are present at sites of bone erosion and exhibit increased resorptive activity. Elevated concentrations of pro-inflammatory mediators, such as interleukin (IL)-33, osteopontin (OPN) and tumor necrosis factor (TNF)-α, can be seen in the synovium and in the skin. Moreover, these factors contribute to the bone metabolism, stimulating the differentiation of monocytes in osteoclast precursors, responsible for augmented osteoclastogenesis and bone erosion.

Objectives: The aim of this study was to assess the ability of pro-inflammatory mediators such as IL-33, OPN and TNF-α to induce skin prompted osteoclastogenesis.

Materials and Methods: *Ex vivo* skin organ culture from healthy donors were stimulated with IL-33, OPN and TNF-α at different concentrations and timing. mRNA was extracted for cDNA transcription and qRT-PCR was used to analyze receptor activator of nuclear factor kappa-B ligand (RANKL), IL-6, IL-33, OPN, TNF-α, IL-33 receptor (ST2L), osteoprotegerin (OPG), IL-4, IL-13 and IL-10 gene expression. Culture supernatants were harvested and stored at −80°C. Healthy donor PBMCs were isolated and seeded with culture supernatants, previously stored. After 15 days, we performed osteoclasts identification through tartrate resistant acid phosphatase (TRAP) staining and osteoclasts activity assessment through TNF receptor-associated factor 6 (TRAF6), spleen tyrosine kinase (Syk), nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 1 (NFATC1) and Cathepsin K gene expression.

Results: Our results showed that pro-osteoclastogenesis mediators RANKL, IL-6, IL-33, OPN and TNF-α were overexpressed in *ex vivo* skin organ cultures stimulated with recombinant IL-33, OPN and TNF-α in a time, but not dose, dependent manner. Conversely, anti-osteoclastogenesis factors such as OPG, IL-4, IL-13 and IL-10 were downregulated respect to unstimulated skin. Osteoclasts overdifferentiated when healthy control PBMCs were cultured with supernatants from stimulated skin organ cultures. Similarly the activation markers of mature osteoclasts, TRAF6, Syk, NFATC1 and Cathepsin K, were enhanced.

Conclusion: In Conclusion, our data showed that IL-33, OPN and TNF-α were able to induce the release of pro-osteoclastogenesis mediators from the skin, suggesting the possibility of a "pro-osteoclastogenesis march" from the skin to the bone.

Disclosure of Interest: None declared.

P 037

Relationship between male-female ratio and body mass index in psoriasis in Japan

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Introduction: Male/female ratio of psoriasis varies worldwide and the ratio was 2:1 in Japan. Not much is available on what causes this diversity in sex distribution.

Increasing data showed comorbidities such as type 2 diabetes mellitus and cardiovascular diseases were higher in psoriatic patients. These findings may indicate that psoriasis is essentially a systemic inflammation that causes insulin resistance, which finally leads to comorbidities of psoriasis. Obesity, not only for its higher prevalence in psoriasis but also for its nature as a source of pro-inflammatory mediators, is thought to have a strong link with both psoriasis and comorbidities of psoriasis. Several studies in Japan have already supported the view that psoriasis is related to obesity.

Objectives: To investigate whether male predominance in Japan had a relationship with obesity.

Materials and Methods: This cross-sectional study compared 429 psoriatic patients with 16 028 non-psoriatic patients who visited our university. Difference in BMI between psoriatic patients and non-psoriatic patients was analyzed. Further analyses were performed by grouping the two populations at BMI 25.

Results: Of 429 psoriatic patients, 295 (68.8%) were men and 134 (31.2%) were women. The male: female ratio was 2.2:1. The control group included 16 028 patients and the sex distribution was 8225 (51.3%) men and 7803 (48.7%) women.
Psoriatic patients in overall ages had a higher mean BMI compared to control in both men (psoriatic patients: 23.94 ± 0.2404 n = 295, control: 22.33 ± 0.04157 n = 8259) and women (psoriatic patients: 23.96 ± 0.4417 n = 135, control: 22.09 ± 0.0471 n = 7848). However, when stratified by ages, men and women showed higher mean BMI at different age classes. Male psoriatic patients of 40–49, 50–59, 60–69 and 70–79 were significantly more overweight in average compared to those of control. On the other hand, female psoriatic patients showed higher mean BMI only in her 20's 30's and 70's. When study population in overall ages was divided at BMI = 25, a criteria of obesity in Japan, there were significantly more obese patients (BMI ≥ 25) with psoriasis than in controls (men: OR:2.005, 95% CI: 1.565–2.569, women: OR:2.25, 95% CI: 1.571–3.222). When further stratified by age, the odds ratio of obesity in age classes was significant in 40–49 and 70–79 in men and 30–39 and 70–79 in women.
Conclusion: Psoriatic patients overall showed significantly greater BMI (male = 23.94, female = 23.96) compared to the control group (male = 22.33, female = 22.09). When examined by age, (1) women at 20–39 were significantly overweight and (2) considerably more men acquired psoriasis after the age of 30 and male patients older than 40 years old were significantly heavier than controls. It is suggested that men older than 40 years old with psoriasis, who tend to be overweight, contribute to the male predominance in Japan.
Disclosure of Interest: None declared.

PSORIASIS AND GLOBAL HEALTH

P 038

Clinical characteristics of patients with facial psoriasis in Malaysia

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Introduction: Psoriasis involving the face may cause considerable distress among patients. The face is visible and facial expressions play an important role in social interactions. Any skin conditions affecting the face, such as psoriasis may result in significant psychosocial impact among the patients. Some authors have also suggested that facial psoriasis may be a sign of severe psoriasis.
Objectives: The aim of our study was to evaluate the characteristics of patients with face psoriasis in Malaysia. We would also like to compare the severity of psoriasis between patients with and without facial involvement.
Materials and Methods: A cross-sectional study was conducted using the data available from the Malaysian Psoriasis Registry from 2007–2011. The Malaysian Psoriasis Registry is a systematic data collection of patients with psoriasis in Malaysia. All adult patients aged 18 years and above were included in this study.
Results: A total of 6181 adult patients were notified to the Malaysian Psoriasis Registry during the 5 year period. Of these, 48.4% of the patients had psoriasis involving the face. Compared to the patients without facial involvement, patients with facial involvement were younger (mean age 47.5 ± 15.7 versus 43.2 ± 15.0 respectively). They also tend to present earlier (mean age of onset 37.4 ± 16.1 for patients without facial involvement versus 33.4 ± 15.0 for patients with facial involvement). There were more male patients with facial involvement (M:F ratio of 1.6:1). 20% of patients with facial involvement had positive family history of psoriasis.
Patients with facial involvement also tend to have more severe disease. Nail involvement were reported in 67.1% of patients with facial psoriasis and 57.9% in patients without facial involvement. Psoriatic arthritis was reported in 17.7% of patients with facial involvement and 14.4% of patients without facial involvement. Patients with facial involvement also had more phototherapy and systemic therapy, compared to patients without facial involvement (5.6% and 53.5% versus 2.6% and 50.6% respectively). 3.6% of patients with facial involvement had history of hospital admission compared to 1.1% of patients without facial involvement. Patients with facial psoriasis also had higher DLQI compared to patients without facial psoriasis (mean DLQI 9.93 ± 6.63 vs. 7.07 ± 5.81 respectively).
Conclusion: Our findings suggest that facial involvement is a marker of severe psoriasis, and this concur with other studies. They need more extensive treatments, such as phototherapy and systemic treatment. They also have poorer quality of life, as evident by the higher number of hospital admissions and higher DLQI.
In Conclusion, facial psoriasis can result in a significant psychosocial impairment and is a marker of severe psoriasis. Early recognition and appropriate treatment by dermatologist is warranted in patients with facial psoriasis.
Disclosure of Interest: None declared.

P 039

Dermatologists' practices and attitudes towards the management of moderate to severe psoriasis in Riyadh city, Saudi Arabia

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Introduction: Psoriasis is associated with a range of co-morbidities which are likely to influence patients' health and quality of life. In the past 10 years, psoriasis management has changed dramatically. The recognition of co-morbidities by dermatologists is a key to successful patient outcome.
Objectives: This study was conducted to assess the dermatologists' practices and attitudes towards the management of moderate to severe psoriasis and the extent to which they screen their patients for medical and psychological co-morbidities in Riyadh, Saudi Arabia.
Materials and Methods: One hundred seventy five dermatologists in the private sector in Riyadh city were surveyed in the period from January, 1 to April, 30, 2012 for their daily practices and attitudes towards the management of patients with moderate to severe psoriasis. They were also surveyed for screening of psoriasis patients for cardiovascular disease (CVD) risk factors, and their practices and attitudes towards systemic therapies of psoriasis.
Results: Among 90 dermatologists who responded to the questionnaire, 32 (35.6%) used a validated clinical severity score for assessment of the severity of psoriasis, and 6 (6.7%) used a validated scale for the assessment of health-related quality of life (HR-QoL). Only 32 dermatologists (35.6%) screened for diabetes mellitus, 28 (31.1%) screened for obesity, 39 (43.3%) screened for hypertension, and 30 (33.3%) screened for dyslipidemia.
Conclusion: Most dermatologists did not routinely use a validated score for assessment of the severity of psoriasis or HR-QoL. Most of them also did not screen psoriasis patients for CVD risk factors. Educating the dermatologists regarding the importance of accurate assessment of psoriasis severity and the recognition of co-morbidities is needed.
Disclosure of Interest: None declared.

P 040

Depression burden in psoriasis: a Moroccan study

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Introduction: Psoriasis affects up to 3% of the population, and can decrease quality of life either in employment or social activities.
Objectives: The aim of this study was to investigate the prevalence of depressive symptomatology among Moroccan patients with psoriasis, in order to better evaluate the disease severity in this patient population.
Materials and Methods: This is a prospective study realized from July 2011 to February 2013, conducted in the dermatological department of Ibn Sina hospital in Rabat, Morocco. Our study included all patients more than 15 years-old, all psoriatic clinical forms combined. The assessment of depression was measured by the Beck Depression Inventory (BDI) in French, a 13-item instrument developed to perform epidemiological studies of depressive symptomatology in the general population. The questionnaire required a third person for illiterate patients and those do not speak French.
Results: We collected 80 patients, including 46 men (57.5%) and 34 women (42.5%). Depression was even more important as the level of education is lower. Depression was mostly mild to moderate in intensity (76, 2%) with some cases of severe depression(23, 8%). Complaints reported by patients were sleep disorders, changes in appetite, anorexia, loss of energy, weakness and extreme fatigue, troubles of concentrating and making decisions, feelings of worthlessness, guilt and failure, suicidal thoughts and death wishes. The severity of depression was correlated with the severity of the pruritus, whereas the cutaneous improvement was associated with improvement of depressive symptoms. Conversely, patients reported a marked improvement in their mental balance when their skin condition improves.
Conclusion: Our results are consistent with previous studies showing that psoriasis is associated with profound psychological morbidity, in particular with depression. It is important to consider this association in the overall management of psoriasis. Currently, biological factors (higher rates of substance P and TNF, decreased serotonin levels) could also explain the association psoriasis-depression.
Disclosure of Interest: None declared.

TOPICAL TREATMENT CHALLENGES

P 041

Narrow band UVB monotherapy versus topical calcipotriol ointment combined with narrow band UVB phototherapy for treatment of psoriasis vulgaris

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Introduction: Calcipotriol and Narrow-band ultraviolet (UV) B phototherapy are both widely used, effective treatments for psoriasis. In order to reduce cumulative UVB doses and to enhance clearance of psoriasis plaques, combination therapies with systemic or topical agents have been established.
Objectives: To compare the clinical efficacy of NBUVB alone and in combination with topical calcipotriol ointment in patients with psoriasis vulgaris.
Materials and Methods: Fifty five patients with psoriasis vulgaris were included in the study. Patients were randomized into two treatment groups. Group I consists of 30 patients received NBUVB phototherapy twice per week as monotherapy and group II consists of 25 patients treated with topical calcipotriol ointment twice daily combined with NBUVB twice weekly. The treatment was continued till the patients achieved at least 75% reduction from baseline psoriasis area and severity index (PASI-75). Efficacy was assessed by PASI score. The cumulative UVB dose and the number of treatment sessions received were determined for each patient.
Results: Forty patients completed the study, 20 patients in each treatment group. Group I consisted of 20 patients 45% were females and 55% were males, their mean age and SD was 34.9 $\pm$ 11 years. Group II consisted of 20 patients with equal proportion of females and males; their mean age and SD was 36.9 $\pm$ 12 years. No statistically significant difference was observed regarding their age, gender, duration of the disease and PASI score among both groups. At baseline the mean PASI scores were 15 $\pm$ 4 and 16.4 $\pm$ 3 in group I and group II respectively, and at the end of treatment, the mean PASI scores were 6.5 $\pm$ 3 in group I and 3.4 $\pm$ 2 in group II ($p = 0.000$). The total cumulative UVB dose and the number of sessions was significantly higher in group I as compare to group II ($p = 0.000$).
Conclusion: Both treatment modalities notably reduced the PASI score and improve psoriasis, however, topical calcipotriol combined with NBUVB clearly reduces the cumulative dose of UVB and improves the response of psoriasis vulgaris to phototherapy.
Disclosure of Interest: None declared.

POSTERS

CLINICAL GUIDELINES AND RECOMMENDATIONS FOR PSORIASIS TREATMENT

P 042

Anti-TNF-alpha neutralizing activity of patients' sera evaluated with a novel interleukin (il)-8 reporter cell line correlates with the clinical response to anti-TNF-alpha antibody

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Introduction: Recently, we have established an IL-8 reporter cell line, THP-G8, which is derived from a human monocyte cell line. This cell line that harbors SLO luciferase genes under the control of IL-8 promoters, responds to TNF-α by augmenting SLO luciferase activity (SLO-LA) in a dose-dependent manner. In addition, pretreatment of TNF-α with anti-TNF-α Abs (ATA), such as with infliximab, adalimumab, or golimumab, suppressed TNF-α-induced SLO-LA dose-dependently. Now, ATA therapy is an essential component of psoriasis therapy and secondary loss of drug effectiveness in patients receiving ATA becomes a clinical and socioeconomic problem. Although the presence of Abs against ATA has been shown to reduce the clinical response to the drug, leading to secondary loss of drug effectiveness, it is not easy to accurately measure the serum level of anti-ATA Abs because residual ATA can mask the presence of anti-ATA Abs.

Objectives: To detect anti-TNF-α neutralizing activity in the sera of psoriatic patients during ATA therapy and to examine the correlation between anti-TNF-α neutralizing activity and clinical response to ATA therapy.

Materials and Methods: We collected serum of two healthy controls, six psoriatic patients who were under ATA therapy and 2 patients who were not. THP-G8 cells were stimulated for 6 h with 10 ng/ml of human recombinant TNF-α that was pretreated for 30 min with or without serially diluted sera. Luciferase activity was measured under a multi-color detection system using the Tripluc®luciferase assay reagent. Inhibitory activity was obtained by dividing SLO-LA of THP-G8 cells treated with serum by that without serum treatment. We examined the correlation between the inhibitory activity of serum and the clinical response to ATA therapy in each patient.

Results: The sera of healthy controls or psoriatic patients who were not treated with ATA ($n = 2$) did not show any inhibitory activity. On the other hand, the sera of 3 patients who were treated 1–4 weeks before and achieved more than PASI 75 showed significant inhibition ($p < .0001$, EC50 value=1/8–3/8 dilution of serum). In contrast, the sera of 3 patients who were treated 2 weeks before but resistant to ATA did not show any inhibitory activity.

Conclusion: These data indicate that this cell line provides a useful tool to evaluate anti-TNF-α neutralizing activity of patients' sera that correlates with the effectiveness of ATA.

Disclosure of Interest: None declared.

P 043

Management of plaque-type psoriasis in the adult: the Italian national clinical guidelines (ed. 2013)

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Introduction: Psoriasis is a common chronic inflammatory, immune-mediated disease predominantly affecting skin and joints. Given the estimated population prevalence of 2–3%, over 2, 5 millions of people are affected from psoriasis in Italy. Despite the availability of a variety of treatments, effective and safe control of disease activity is not always easy to achieve and there is no standard therapeutic approach.

Objectives: Many guidelines and other sorts of clinical recommendations have been produced in the last years in different countries. Moreover, in Italy some regional organisms edited independent official documents sometimes suggesting clinical behaviors different from each other. For these reason, the Italian Society of Hospital Dermatologists (ADOI) and the National Guidelines System of the Italian National Institute of Health (SNLG-ISS) entered into a collaboration agreement focused on issues of evidence-based medicine and the development of guidelines following a standardized methodological approach to supply a guarantee of validity and reproducibility of the recommendations produced. The guideline on pharmacological treatment of plaque-type psoriasis in adults is the first evidence-based guideline, which is has been implemented under the cooperation SNLG-ISS/ADOI.

Materials and Methods: This guideline have been drawn upgrading to the guidelines "Diagnosis and management of psoriasis and psoriatic arthritis in adults" developed by the Scottish Intercollegiate Guideline Network (SIGN) because of quality warranty of the method, availability of documents (research strategies, methodological checklist, summary tables), in addition to the recent publication (October 2010). The questions adopted in our guidelines refer to topical treatments, phototherapy and photochemotherapy, traditional systemic therapy, biologic therapy, and combined treatments.

Results: The systematic research of the literature was updated to December 2012; a total of 3676 papers were found and 206 taken into account in the drafting of the guidelines. A multidisciplinary panel of experts including dermatologists, epidemiologists, internists, rheumatologists, nurses, general practitioners, pharmacologists, retrievers, and patient representatives will discuss and approve the final text on March 5, 2013. After a publication for a 1-month period on the official web site of SNLG-ISS in the aim of allow further eventual observations from other stakeholders, the guidelines will be officially presented on May 30, 2013.

Conclusion: As similar guidelines, Italian national guidelines are not intended to be construed or to serve as a standard of care. We hope they will contribute to make the management of psoriasis more homogeneous throughout Italy as it is advised that significant departures from them or any local guidelines derived from them should be fully documented in the patient's case notes at the time the relevant decision is taken.

Disclosure of Interest: None declared.

P 044

Increasing the injection intervals of adalimumab in psoriatic patients

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Introduction: During successful maintenance with biologics including Adalimumab (ADA) for psoriasis, cessation of biologics can be considered to limit drug exposure or to reduce cost in some selected patients. However, after stopping the treatment with biologics, we often experienced recurrences of psoriasis and arthritis. We would like to present the psoriatic patient who can maintain psoriasis and/or arthritis in a good state while increasing the injection interval of ADA beyond 2 weeks.
Objectives: We investigate how many patients who can prolong interval of ADA administration.
Results: Nine of 71 psoriatic patients receiving ADA were able to increase the injection intervals more than 4 weeks at a mean time of 48 weeks. The mean baseline Psoriasis Area and Severity Index (PASI) score was 15.6, and after increasing the injection more than 4 weeks was 1.0.
Conclusion: After achieving more than PASI90 in patients treated with ADA at 16 weeks after administration of ADA, it is worth increasing the injection of ADA by 1 week in some selected patients to limit drug exposure or to reduce cost.
Disclosure of Interest: None declared.

P 045

The use of spa in psoriasis: a Moroccan experience

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Introduction: Bathing has been recognised to have beneficial effects on several chronic skin diseases. One of them is psoriasis. The efficacy of this thermal station is due to the ionic mechanism of the elements contained in the water. Moulay Yacoub, located in Fes-Morocco, has been known as an important SPA center since ancient times. Its water comes from a depth of 1500 m, and emerges at a temperature of 54°C. This water is known to have high level of sulphur.
Objectives: This study aims to assess the effectiveness of a treatment with Sulphurous Mineral Waters on patients with psoriasis.
Materials and Methods: Our study is a transversal study of patients followed-up for psoriasis in the dermatology unit in Ibn Sina University Hospital of Rabat. For every patient, these parameters were recorded: age, sex, sun exposure, personal history of severe form, family history of psoriais, age of onset, PASI score, previous and current treatment, number of thermal stations's visits, duration, type of care (Simple bath, aerobath) and evolution after care.
Results: Our study concerned twenty seven cases of psoriasis. The average age of the patients was 41 years (range: 9–61 years). The sex ratio (F/M) was 3, 5. Eleven patients have been visited thermal station Moulay Yacoub (7F/4M). The number of visits is estimated at 1.3 (8 patients: 1 visit; 2 patients: 2 visits, 1 patient: 3 visits). At the time of the visit, 7 patients were treated topically, one patient with phototherapy and 3 patients didn't receive any treatment. The patients went to the station by their own without a medical prescription. All of them were in relapse at the time of the visit. The duration of the visit lasted about an hour. Two patients reported an improvement of psoriasis, 6 patients were exacerbated while 3 patients presented no change.Moulay Yaacoub's station contains Sulphur chemical element and others ions. This station exerts beneficial antiinflammatory, keratoplastic, and antipruriginous effects and also possess antibacterial and antifungal properties. The activity of sulphur in the skin seems to be related mainly to its interaction with cysteine and with its catabolites.
The hydrogen sulphide (H_2S) that is present in Moulay Yacoub's station acts primarily as an antioxidant agent and a free radical scavenger, which may be the trigger for the chronic inflammatory manifestations and the parallel immunological factors. Also exogenous H_2S reduces clonal growth, cell proliferation and cell adhesion of human keratinocytes. Until nowadays, any study was made to prove the efficacy of Moulay Yacoub for psoriasis.
Conclusion: To our knowledge, it's the first Moroccan study interesting state of psoriasis after sulphur baths. It is necessary to do more studies with much larger samples to better appreciate the effect of thermal stations on psoriasis.
Disclosure of Interest: None declared.

P 046

Insufficient tetanus vaccination status in patients with psoriasis and systemic immunosuppression

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Introduction: Tetanus disease is caused by *Clostridium tetani* and is one of the most common infectious diseases worldwide. Despite international recommendations for patients with a chronic skin diseases, there has been a distinctive lack of protection provided by vaccination for these patients in the past decades.
Objectives: To evaluate the tetanus vaccination status in patients with psoriasis and systemic therapies
Materials and Methods: Within the context of our prospective clinical investigation we consecutively determined the concentrations of immunoglobulin G antibodies against *C. tetani* in 100 patients with a psoriasis vulgaris.
Results: A total of 47 patients were male, and 53 were female. In a total of 30% (n = 30; 13 male, 17 female) of the patients, insufficient immunoglobulin G antibody concentrations were detected. Particularly the subanalysis indicated an insufficient tetanus protection also in younger patients.
Conclusion: Chronic skin diseases, e.g. Psoriasis, is known as a potential entrance for *C. tetani*. Unlike e.g. acute wounds, however, it is hardly ever considered to be a reason for assessment of the tetanus immune status. The results of our investigation clarify that particulary not only elderly people suffering from psoriasis have to be tested for tetanus protection provided by vaccination more strictly than ever, and if necessary, vaccinations have to be renewed
Disclosure of Interest: None declared.

P 047

One unusual case of psoriasis tongue resistant to anti TNF alfa

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Introduction: Psoriasis affecting the oral mucous membranes are rarely reported in the international literature, in particular tongue lesions are hardly documented.
Objectives: This poster presents a 28 years old patient with persistent whitisl lesion on this tonge, treatment-resistant anti TNF alfa.
Materials and Methods: Patients with psoriatic arthritis and psoriasis making use infliximab and methotrexate 10 mg per week for 2 years, presented with intense painful swelling in the tongue, aphthous lesions and secretion withe the dorsum of the tongue. The hypothesis was candidiasis ans lichen planus, which was confirmed by the first biopsy. Has no improvement with prednisone, tramadol, codeine and terbinafine.
Results: The second biopsy result was as psoriasis and new lesions in the body, it is concluded loss of efficacy of infliximab, which was replaced by adalimumamb plus methotrexate with rapid improvement and relative control.

Conclusion: The psoriasis expert should conduct examination of mucous membranes, especially of the oral mucosa, on a routine and thorough of all patients with psoriasis. Psoriasis in the language may be the early sign of psoriasis or reveal symptoms of loss of efficacy of anti-TNF alpha.
Disclosure of Interest: None declared.

CLINICAL TRIALS IN PSORIASIS

P 048

A phase II study of ponesimod in chronic plaque psoriasis: improvements in patient-reported outcomes

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Introduction: Ponesimod is an oral, selective and reversible sphingosine 1-phosphate receptor-1 modulator.
Objectives: To evaluate the effect of ponesimod on patient (pt)-reported disease severity and quality of life (QoL) in pts with moderate-to-severe chronic plaque psoriasis.
Materials and Methods: In a multicenter, randomized, double-blind, placebo (pbo)-controlled, parallel-group, phase II study (NCT01208090), 326 pts were randomized to pbo, ponesimod 20 or 40 mg (1:2:2 ratio) once daily (Day 1: 10 mg; Days 8 and 15: up-titration to higher dose) for 16 weeks. At week 16, pts with $\geq$50% improvement from baseline in Psoriasis Area Severity Index (PASI) were eligible for the maintenance period (weeks 16–28). Eligible ponesimod pts were re-randomized to ponesimod (same dose) or pbo (1:1 ratio); eligible pbo pts were mock re-randomized to pbo. The primary endpoint was $\geq$75% improvement from baseline in PASI (PASI75) at week 16. Pts rated disease severity using the Patient's Global Psoriasis Assessment (PGPA), and health-related QoL using the Dermatology Life Quality Index (DLQI) and SF-36 Questionnaire.
Results: A significantly greater proportion of pts on ponesimod 20 (46%) and 40 mg (48%) achieved the primary endpoint versus pbo (13%; $p < 0.0001$ for both doses versus pbo). At week 16, 34% of pts on ponesimod 20 or 40 mg had no (PGPA 0) or almost no (PGPA 1) signs of psoriasis versus 6% on pbo. A total of 219 pts entered the maintenance period. Further improvements were seen in pts continuing on ponesimod 20 and 40 mg: 47% and 66% scored PGPA 0 or 1 at week 28 versus 24% and 23% of pts switching to pbo from ponesimod 20 and 40 mg. There were significantly greater improvements in DLQI score from baseline at week 16 in pts on ponesimod 20 [mean −5.9 (SD 6.0)] and 40 mg [−6.2 (6.4)] versus pbo [−2.5 (5.9); $p = 0.0003$ and $p = 0.0004$]. At week 16, 52% and 50% of pts on ponesimod 20 and 40 mg versus 28% on pbo achieved a clinically relevant improvement of at least five points from baseline DLQI; a DLQI of 0 or 1 was achieved by 31% and 27% of pts on ponesimod 20 and 40 mg versus 6% on pbo. At week 16 the SF-36 physical component summary score increased from baseline with a mean (SD) of 3.4 (6.7 and 7.0) in pts on ponesimod 20 or 40 mg versus a mean decrease of 0.1 (6.7) in pts on pbo; mean (SD) increases from baseline in mental component summary scores were 3.9 (8.8) and 3.6 (10.5) in pts on ponesimod 20 and 40 mg versus 0.6 (9.9) in pts on pbo. Improvements in DLQI score and SF-36 components were sustained at week 28 in pts continuing on ponesimod 20 and 40 mg. Adverse events reported more frequently with ponesimod were dyspnea, increases in alanine and aspartate aminotransferase, dizziness, bradycardia, 2nd degree atrioventricular (AV) block, and hypertension; bradycardia and 2nd degree AV block were transient and limited to ponesimod initiation.
Conclusion: Consistent improvements in patient-rated disease severity and health-related QoL endpoints were observed with ponesimod.
Disclosure of Interest: L. Kemeny Consultant for: Abbott, Janssen, R. Yankova Consultant for: Institute for Clinical Expertises, Sofia, Bulgaria, M. Talamonti: none declared, A. Vaclavkova Employee of: Actelion Pharmaceuticals Ltd, M. Burcklen Shareholder of: Actelion Pharmaceuticals Ltd, Employee of: Actelion Pharmaceuticals Ltd, G. Thomas Consultant for: Actelion Pharmaceuticals Ltd, D. D'Ambrosio Shareholder of: Actelion Pharmaceuticals Ltd, Employee of: Actelion Pharmaceuticals Ltd.

P 049

Clinical pharmacology of anti-il-17 receptor antibody khk4827 (brodalumab) in Japanese healthy volunteers and subjects with moderate to severe psoriasis: a randomized, dose-escalation, placebo-controlled study

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Introduction: KHK4827 (brodalumab, also known as AMG 827) is a monoclonal antibody that binds to the human IL-17RA and blocks the biological activity of IL-17 family members (IL-17A, IL-17A/F, IL-17C, IL-17F, and IL-25) that leads to local tissue inflammation. Recent studies suggest that IL-17 cytokines and IL-17-positive T-cells play an important role in the pathogenesis of psoriasis.
Objectives: This study was a multi-center, randomized, single-blind, placebo-controlled, single-dose study to evaluate the safety, tolerability, pharmacokinetics, and pharmacodynamics of KHK4827 in Japanese healthy volunteers and subjects with moderate to severe psoriasis (ClinicalTrials.gov Identifier: NCT01488201).
Materials and Methods: The study consisted of two parts. In Part A, 40 healthy subjects were randomized 6:2 to receive a single dose of placebo or KHK4827 by SC (70, 140, 210, 420 mg) or IV (210 mg) injection. In Part B, 13 psoriasis subjects received a single dose of KHK4827 at 140 or 350 mg SC.
Results: The incidence of treatment-emergent adverse events including injection site erythema was similar among the subjects who received KHK4827 and placebo. No deaths, serious adverse events, dose-limiting toxicities, or withdrawals due to adverse events were reported throughout the study. No subjects tested positive for anti- KHK4827 antibodies after KHK4827 administration.
The KHK4827 serum concentration and the duration of IL-17 receptor occupancy increased with increasing dose. The pharmacokinetic profiles and IL-17 receptor occupancy profiles were comparable between the healthy subjects and the psoriasis subjects. A single dose of KHK4827 at 140 mg or 350 mg SC resulted in rapid, dose-dependent improvement in psoriasis symptoms. Two of 6 (33%) and 5 of 7 (71%) subjects in the 140 mg SC and 350 mg SC groups, respectively, achieved PASI 75 by day 15. A total of 3 of 6 (50%) and 6 of 7 (86%) subjects in the 140 mg SC and 350 mg SC groups, respectively, achieved PASI 75 by day 43. All seven subjects receiving 350 mg SC achieved a PGA score of 0 or 1.
Conclusion: This phase 1 study of KHK4827 confirmed that the single doses up to 420 mg SC were safe and well-tolerated in Japanese subjects. Rapid clinical response was also noted in Japanese subjects with moderate to severe psoriasis. These results, including PK and PD profiles, are highly comparable with those already obtained in the study conducted in the US (Ref.1). A 12-week phase 2 study with brodalumab demonstrated rapid and robust improvement in psoriasis symptoms with a favorable safety profile in US subjects (Ref 2). Taken together, it is reasonably expected that

brodalumab will offer a novel and effective treatment to psoriasis patients with a low likelihood of ethnic differences in clinical response.
Disclosure of Interest: none declared.
References:
1. J Invest Dermatol 2012, 132. 2466-8.
2. NEJM 2012, 366. 1181-9.

P 050

A phase II study of ponesimod, an oral, selective sphingosine 1-phosphate receptor-1 modulator, in chronic plaque psoriasis

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Introduction: Ponesimod is an oral, selective, and reversible sphingosine 1-phosphate receptor 1 modulator under investigation in psoriasis.
Objectives: Evaluate the efficacy, safety and tolerability of ponesimod in patients (pts) with moderate-to-severe chronic plaque psoriasis.
Materials and Methods: In a multicenter, randomized, double-blind, placebo (pbo)-controlled, parallel-group, phase II study (NCT01208090), 326 pts were randomized to pbo or ponesimod at 20 mg or 40 mg (1:2:2 ratio) once daily (Day 1: 10 mg; Days 8 and 15: up-titration to 20 mg and 40 mg, respectively) for 16 weeks (induction period). At week 16, pts with $\geq$50% improvement from baseline in Psoriasis Area Severity Index (PASI) were eligible for the maintenance period (weeks 16–28). Eligible ponesimod pts were re-randomized to ponesimod (same dose) or pbo (1:1 ratio); eligible pbo pts were mock re-randomized to pbo. The primary endpoint was $\geq$75% improvement from baseline in PASI (PASI75) at week 16. The secondary endpoint was Physician Global Assessment (PGA) 'clear' (0) or 'almost clear' (1) at week 16.
Results: Baseline characteristics were well balanced across treatment groups. A significantly greater proportion of pts on ponesimod 20 mg (46%) and 40 mg (48%) achieved the primary endpoint (PASI75) compared with pbo (13%) ($p < 0.0001$ for both doses compared with pbo). At week 16, 28% and 32% of pts on ponesimod 20 mg and 40 mg achieved PGA 0 or 1 compared with 4% on pbo ($p < 0.0001$ for both doses compared with pbo). A total of 219 pts entered the maintenance period. Further improvements were seen in pts continuing on ponesimod 20 mg and 40 mg; 71% and 77% achieved PASI75 at week 28, compared with 42% and 40% of pts switching to pbo from ponesimod 20 mg and 40 mg respectively. Lymphocyte counts were rapidly reduced on ponesimod initiation then remained stable during treatment; mean percentage change from baseline to week 16 was −56% and −65% for ponesimod 20 mg and 40 mg, respectively. In pts switching to pbo from ponesimod in the maintenance period, lymphocyte counts returned to baseline levels after 2 weeks. Adverse events (AEs) reported more frequently with ponesimod compared with placebo were dyspnea, alanine and aspartate aminotransferase increase, dizziness, bradycardia, 2nd degree atrioventricular (AV) block and hypertension; most AEs were mild or moderate in intensity. Bradycardia and 2nd degree AV block were transient AEs and limited to ponesimod initiation. Ponesimod treatment was not associated with an increased risk of infection.
Conclusion: A highly statistically significant effect was observed on PASI75 and PGA with both doses of ponesimod following the 16-week induction; efficacy continued to improve during the maintenance period. Ponesimod 20 mg was generally well tolerated.
Disclosure of Interest: S. Chimenti Speaker bureau of: Pfizer, Merck, Abbvie, Janssen-Cilag, Novartis, Leo-Pharma, Consultant for: Pfizer, Merck, Abbvie, Janssen-Cilag, Novartis, P. Arenberger: none declared, S. Karpati: none declared, P.-G. Sator: none declared, A. Vaclavkova Employee of: Actelion Pharmaceuticals Ltd, M. Burcklen Shareholder of: Actelion Pharmaceuticals Ltd, Employee of: Actelion Pharmaceuticals Ltd, M. Stefani Consultant for: Actelion Pharmaceuticals Ltd, D. D'Ambrosio Shareholder of: Actelion Pharmaceuticals Ltd, Employee of: Actelion Pharmaceuticals Ltd.

P 052

Apremilast, an oral phosphodiesterase 4 inhibitor, in patients with moderate to severe psoriasis: 16-week results of a phase III, randomized, controlled trial (esteem 1)

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Introduction: Apremilast (APR), an oral phosphodiesterase 4 inhibitor, works intracellularly to modulate a network of pro- and anti-inflammatory mediators.
Objectives: This phase III study (ESTEEM 1) compared the efficacy and safety of APR with placebo in patients with moderate to severe psoriasis.
Materials and Methods: Patients with moderate to severe psoriasis (Psoriasis Area and Severity Index [PASI] $\geq$12, body surface area [BSA] $\geq$10%, static Physician's Global Assessment [sPGA] $\geq$3) who were candidates for phototherapy or systemic therapy were randomized 2:1 to APR 30 mg BID (APR30) or placebo through week 16. All patients were then treated with APR30 through week 32, followed by a randomized withdrawal phase through week 52.
Results: 844 patients were randomized. Mean age was 46 years, mean duration of psoriasis was 19.4 years, and mean PASI score was 19.0; 49.2% of patients had BSA involvement of >20%. The study arms were similar in regards to baseline demographic and disease characteristics; 28.7% had prior biologic exposure and 6.6% were biologic failures. At week 16, significantly more patients receiving APR30 achieved 75% improvement from baseline in PASI (PASI-75) score (33.1%) and 50% improvement from baseline in PASI (PASI-50) score (58.7%) versus placebo (5.3% and 17.0%, respectively; $p < 0.0001$ for both). The mean change from baseline in PASI score was −52.1% for APR30 versus −16.7% for placebo ($p < 0.0001$); the median change was −59.0% versus −14.0%. Adverse events (AEs) in $\geq$5% of any treatment group were diarrhea (placebo, 7.1%; APR30, 18.8%), nausea (6.7%, 15.7%), URTI (7.4%, 10.2%), nasopharyngitis (8.2%, 7.3%), tension headache (4.3%, 7.3%), and headache (4.6%, 5.5%). Over 96% of patients had either no AEs or mild/moderate AEs. Discontinuation rates due to AEs were low (3–5%). Serious AEs (including serious infections, malignancies, and cardiovascular events) and laboratory value changes were similar between groups.
Conclusion: APR significantly reduced the severity of moderate to severe psoriasis and was generally well tolerated with no new safety or laboratory findings.
Disclosure of Interest: K. Reich Consultant for: Abbott, AbbVie, Amgen, Basilea, Biogen-Idec, Celgene, Centocor, EliLilly, Forward Pharma, GSK, Janssen-Cilag, LEO Pharma, Medac, MSD, Novartis, Ocean Pharma, Pfizer, UCB, K. Papp Consultant for: Celgene, Abbott, Eli Lilly, Janssen, Amgen, C. Leonardi Speaker bureau of: Abbott and Amgen, Grant/Research Support from: Abbott, Amgen, Anacor, Celgene, Centocor, Eli Lilly, Galderma, GlazoSmithKline, Incyte, Maruho, Novartis, Novo Nordisk, Pfizer, Inc., Schering Plough, Sirtris, Stiefel, Vascular Biogenic, and Wyeth, Consultant for: Abbott, Amgen, Centocor, Eli Lilly, and Pfizer, Inc., L. Kircik Speaker

bureau of: Amgen, Grant/Research Support from: Celgene, Amgen, Consultant for: Amgen, S. Chimenti Consultant for: Abbott, Pfizer, Janssen, Celgene, C. Hu Employee of: Celgene Corporation, R. Stevens Employee of: Celgene Corporation, R. Day Employee of: Celgene Corporation, C. Griffiths Grant/Research Support from: Novartis, Celgene, Eli Lily, LEO, Abbott (Abbvie), Consultant for: Janssen, Pfizer.

P 053

Tofacitinib for moderate to severe chronic plaque psoriasis: 24-week preliminary analysis from the 56-week phase 3 opt re-treatment study

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Introduction: Tofacitinib is a novel, oral Janus kinase inhibitor that is being investigated for the treatment of plaque psoriasis. These preliminary data will be the first from the tofacitinib Phase 3 clinical programme in psoriasis.
Objectives: To report 24-week preliminary data from a 56-week Phase 3 study of tofacitinib 5 and 10 mg twice daily (BID) doses in adult patients (pts) with moderate to severe plaque psoriasis.
Materials and Methods: This is a Phase 3, multinational, randomised, mixed-blind, withdrawal and re-treatment study (NCT01186744; 674 pts). Key inclusion criteria: aged $\geq$18 years with a plaque psoriasis diagnosis $\geq$12 months; a Psoriasis Area and Severity Index (PASI) score $\geq$12 plus a Physician's Global Assessment (PGA) score of three or four; plaque psoriasis covering $\geq$10% total body surface area (BSA).
The 56-week study comprises three treatment periods. During Period A: pts are randomised and dose-blinded 1:1 to receive tofacitinib 5 or 10 mg BID for 24 weeks. The efficacy and safety data during this period will be the data presented. Patients are then classified as treatment responders or non-responders based on achieving both a 75% reduction in PASI (PASI75) and a PGA response ("clear" or "almost clear"). Non-responders will be discontinued. Period B: responders at week 24 enter a double-blind treatment/withdrawal period in being re-randomised 3:1 to placebo BID or to continue their current dose of tofacitinib. Patiens enter Period C at week 40 or if PASI response drops >50% below the week 24 response at week 28, 32 or 36. In Period C, pts receive the same dose of tofacitinib to which they were randomised in Period A.
Primary efficacy endpoints relate to the proportion of responders in Periods B and C, which will be reported at a later date.
Results: Outcomes to be reported at the meeting will include the proportion of patients achieving PASI75, the percent BSA affected by psoriasis, PGA, patient-reported outcomes (Itch Severity Item [ISI], Dermatology Life Quality Index [DLQI], Short Form-36 questionnaire [SF-36], Patient Global Assessment of psoriasis (PtGA), and EuroQol 5 Dimensions [EQ-5D]), as well as safety and laboratory assessments, based on preliminary data at week 24 from Period A only.
Conclusion: The week 24 data from this Phase 3 trial will provide important first insights into the Phase 3 efficacy and safety of tofacitinib for the treatment of pts with moderate to severe plaque psoriasis.
Disclosure of Interest: R. Bissonnette Grant/Research Support from: Pfizer Inc, Consultant for: Pfizer Inc, P. Foley Speaker bureau of: Pfizer Inc, Grant/Research Support from: Pfizer Inc, Consultant for: Pfizer Inc, C. E. Griffiths Grant/Research Support from: Pfizer Inc, L. Iversen Grant/Research Support from: Pfizer Inc, M. Kadurina: none declared, H. L. Sofen Grant/Research Support from: Pfizer Inc, M. D. F. Takahashi Speaker bureau of: Pfizer Inc, Grant/Research Support from: Pfizer Inc, Consultant for: Pfizer Inc, M. E. Bachinsky Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, P. Gupta Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, L. Mallbris Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, J. Proulx Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, H. Tan Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, H. Valdez Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, R. Wolk Shareholder of: Pfizer Inc, Employee of: Pfizer Inc.

OTHERS

P 054

Efficacy of biologics for the difficult to treat psoriatic lesions

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Introduction: : Psoriatic patients will require an aggressive treatment if their quality of life (QOL) is impaired. The most common psoriasis lesions are located on the scalp, trunk, and the extensor surfaces of elbows and knees. When psoriasis is located on the scalp, face and nails, it causes further impairment of QOL compared with other body lesions. Psoriasis located on the scalp, nails and lower extremities are recalcitrant to topical treatments.
Objectives: We examined the efficacy of biologics (infliximab,adalimumab, ustekinumab) for the difficult to treat skin lesions including scalp, nails and lower extremities as compared with other body lesions.
Materials and Methods: We examined that the improvement of the different parts of psoriasis skin lesions up to 6 months using the biologics by infliximab (32 cases),adalimumab (49 cases),ustekinumab (27 cases), at The Jikei university hospital.
Results: Intractable psoriatic skin lesions including head and lower legs showed similar improvement to other body lesions.
Conclusion: The biologic treatment improves the difficult to treat psoriatic lesions similar to the other parts of the body.
Disclosure of Interest: None declared.

CLINICAL TRIALS IN PSORIASIS

P 055

Malignancy events in the psoriasis longitudinal assessment and registry study: current status of observations

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Introduction: PSOLAR (**PSO**riasis **L**ongitudinal **A**ssessment **R**egistry) is a multicenter, prospective, longitudinal, 8 + yr, observational study.
Objectives: To report malignancy events observed in PSOLAR, a study evaluating long-term safety and clinical outcomes for pts receiving (or eligible to receive) treatment for psoriasis with biologics and/or conventional systemic agents in academic and community practices.

Materials and Methods: PSOLAR captures events following both near- and long-term exposure to systemic therapies. Safety observations captured for ustekinumab- and infliximab-exposed pts support sponsor regulatory commitments. Prevalence and incidence of malignancy in moderate to severe psoriasis populations using systemic immunomodulatory therapies are being evaluated. Accrual of malignancies by exposure sub-grps through August 23, 2011 are summarized. Malignancies reported here are inclusive of all types except non-melanoma skin cancer (NMSC, ie, basal/squamous cell carcinomas).
Results: As of Aug 23, 2011, 9495 patients enrolled in PSOLAR(13 733 cumulative patient-yrs). Unadjusted rates of malignancy excluding NMSC, were generally similar across grps as follows (in order of attribution): ustekinumab 0.60 events per 100 patient years of observation (PYO) (14 events/2332 PYO), anti-TNF sponsor biologics (infliximab and golimumab) 0.65 per 100 PYO (14/2158), non-sponsor biologics (almost exclusively etanercept / adalimumab) 0.60 per 100 PYO (39/6458), non-biologic therapy 0.61 per 100 PYO (17/2784), and overall 0.61 per 100 PYO (84/13733). (Exposure definition: event counts add to exposure group with highest position in the order of attribution, before/at the time of the adverse event.) 57% of ustekinumab patients were exposed at/after entry into PSOLAR; ustekinumab cohort represents a balance of new and prior/ongoing exposure to sample event rates at varying levels of exposure. To better compare rates observed in patients with different exposure patterns, more malignancy events than are currently available are needed to undertake rigorous, comparative statistical analyses.
Limitations: Due to channeling of therapy, there are differences in subgroup characteristics (eg. there were more patients aged >65 yrs not exposed to biologics, which could influence the rate of malignancy, given long latency of cancer events and prevalence in the elderly). Any eventual formal comparison will require statistical modeling to better adjust for pt characteristics and risks, including consideration of multiple treatments.
Conclusion: These are preliminary observations and PSOLAR will follow patients for up to 8 yrs, providing more robust future results. Although the numbers of malignancy events at this time are small, initial rates appear generally similar to those observed in registrational programs with ustekinumab/infliximab. PSOLAR represents a resource for tracking safety events of interest among pts eligible to receive systemic therapies.
Disclosure of Interest: R. Langley Grant/Research Support from: Investigator for Janssen-sponsored clinical trials, B. Strober Grant/Research Support from: Investigator for Janssen-sponsored clinical trials, M. Lebwohl Grant/Research Support from: Investigator for Janssen-sponsored clinical trials, V. Ho Grant/Research Support from: Investigator for Janssen-sponsored clinical trials, D. Fiorentino Grant/Research Support from: Investigator for Janssen-sponsored clinical trials, S. Fakharzadeh Employee of: Janssen Services, LLC, S. Calabro Employee of: Janssen Services, LLC, W. Langholff Employee of: Janssen Services, LLC, M. Chevrier Employee of: Janssen Services, LLC.

P 056

Efficacy and safety of systemic methotrexate versus acitretin in psoriasis patients with significant palmoplantar involvement: a prospective, randomized study

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Introduction: Palmoplantar psoriasis (PP) is a chronic, inflammatory and proliferative dermatosis of the palms and/or soles with significant morbidity. It is notoriously difficult to treat and unresponsive to traditional topical agents.
Objectives: To compare the efficacy and safety of systemic methotrexate versus acitretin in psoriasis patients with significant palmoplantar involvement.
Materials and Methods: This was a prospective, randomized study involving 100 patients of PP with significant palmoplantar disease (defined as moderate to severe psoriasis having involving at least 50% of a single palm or plantar surface). Patients meeting the eligibility criteria were randomly assigned to one of the two treatment groups of 50 patients. Patients in Group I received methotrexate in doses of 0.4 mg/kg body weight weekly and patients in Group II received acitretin in doses of 0.5 mg/kg body weight daily. Patients in each group were evaluated by the modified PASI (m-PPPASI) score for palms and soles involvement at baseline and at two weekly intervals for the first 4 weeks and then 4 weekly for next 8 weeks. Treatment protocol was continued for a period till patient achieved more than 75% reduction in m-PPPASI from baseline or 12 weeks whichever was earlier.
Results: There was a statistically significant difference in the reduction of m-PPPASI of patients on methotrexate at week 8 and week 12. The mean m-PPPASI at week 8 was 15.38 ± 6.08 in methotrexate group and 17.23 ± 5.25 in acitretin group (p = 0.04). The mean m-PPPASI at week 12 was 10.30 ± 5.97 in methotrexate group and 12.40 ± 5.31 in acitretin group (p = 0.03).

	m-PPPASI Score		
Week	Methotrexate group	Acitretin group	p value
0	26.86 ± 8.20	26.63 ± 7.97	0.85
2	26.86 ± 8.20	26.63 ± 7.97	0.81
4	20.51 ± 6.42	22.31 ± 6.88	0.17
8	15.38 ± 6.08	17.23 ± 5.25*	0.04
12	10.30 ± 5.97	12.40 ± 5.31*	0.03

Data presented as mean ± SD
*significant p value <0.05

Conclusion: Methotrexate is a relatively inexpensive, safe and efficacious systemic drug for the treatment of psoriasis patients with significant palmoplantar involvement.
Disclosure of Interest: None declared.

P 057

Effect of granulocyte and monocyte adsorption apheresis (GCAP) for the treatment of generalized pustular psoriasis: results from multicenter study in Japan

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Introduction: In generalized pustular psoriasis (GPP), histopathologically, the entire skin may be affected by neutrophilic pustules, and erythroderma, a model inflammatory autoimmune disease with poor response to pharmacologics.
Objectives: To investigate the efficacy of selective depletion of myeloid lineage leucocytes in patients with GPP.
Materials and Methods: Fifteen patients with moderate to severe GPP in spite of conventional medications were included. To be eligible >10% of skin was to be covered with pustules. Ongoing medications, oral etretinate, cyclosporine, methotrexate, prednisolone or topical prednisolone/vitamin D3 could continue if had started well in advance of entry. Each patient could receive five granulocyte/monocyte adsorptive apheresis (GCAP) sessions with the Adacolumn at one session/week during five consecutive weeks to selectively deplete FcγR and complement receptor expressing leu-

cocytes. Efficacy was assessed by measuring areas with psoriatic lesions and laboratory findings before and 2 weeks post last GCAP.
Results: One patient did not complete the first GCAP session. Based on the GPP severity scores relative to entry, the overall scores significantly improved ($n = 14$, $p = 0.0027$), and the area of erythroderma ($p = 0.0042$), pustules ($p = 0.0031$), and oedema ($p = 0.0014$) decreased. Likewise, Dermatology Life Quality Index (DLQI) markedly improved ($p = 0.0016$), reflecting better daily function, and quality of life. Twelve patients were judged as responders (85.7%), and 10 patients maintained clinically response for 10 weeks post last GCAP without any change in medication.
Conclusion: GCAP in this clinical setting was safe and effective indicating a major role for granulocytes/monocytes in the immunopathogenesis of GPP. (JAAD in press)
Disclosure of Interest: None declared.

P 058

Power Doppler ultrasonography in interdisciplinary practice of patients with psoriasis

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Introduction: Ultrasonography has become a highly useful tool in the rheumatologist's daily practice due to its low cost, good tolerance on the part of the patient, its higher sensibility in relation to clinical examination and the possibility to monitor the inflammatory activity in the different rheumatic diseases. It permits to depict in a simple image a variety of alterations, which range from mild inflammatory changes in the tendon and joints (edema, thickening, capsular distension, increased vascular flow) to structural changes (erosions, enthesophytes). This imaging technique has also proved useful to detect inflammatory changes in the psoriatic plaque and alterations in the nail structure, arousing a particular interest in dermatologists.
Objectives: To know the clinical and ultrasound (US) features of a cohort of patients with skin and/or articular psoriasis in the daily clinical practice. To demonstrate the usefulness of the US in the evaluation and treatment of these patients and to determine the enthesis and articular subclinical involvement of the individuals with Psoriasis.
Materials and Methods: A prospective, observational and descriptive study of 19 patients with skin and/or articular Psoriasis diagnoses according to CASPAR criteria, who were referred from two clinical centers in Argentina and were on early treatment of their underlying disease or required a change in the therapy due to lack of response to it.
There were evaluated the presence of articular involvement and enthesis involvement (by means of MASES score and Pain VAS score), ESR laboratory tests, type of Psoriasis, extension and nail involvement (by PASI y modified NAPSI). Basal US was performed and in the GUESS enthesis score along with the presence of Power Doppler (PD) with a range varying from 0 to 46, performed by a rheumatologist trained in the method.
Results: Out of the total of patients evaluated, 13 (68.4%) were male and 6 were female (31.5%). The average age was 35, 9 years old (19–63 years old). Out of the 19 patients diagnosed with psoriasis, 9 showed articular symptoms (47.3%) and 10 showed no symptoms (52.6%). Out of the 9 patients with arthralgia, 100% presented enthesopathy and tendinopathy, 5 (55%) bursitis, 6 (66,6%) erosion, and 5 (55%) had positive PD. Out of the 10 asymptomatic patients, 100% presented enthesopathy, 9 (90%) tendinopathy, 2 (20%) bursitis and erosion, and 4 (40%) positive PD.
Conclusion: As it has already been reported in related literature, we can find that ultrasonography is more sensitive than the clinical one to detect enthesis changes. In our sample, 100% of the population had involvement of at least one of the entheses assessed.
Based on our results, we encourage dermatologists and reumathologists to work together in order to detect musculoskeletal involvement in daily clinical practice of psoriasis patients, which can set a standard in the treatment of this disease.
Disclosure of Interest: None declared.

P 059

A PASI $\geq$90 response is associated with improved patient reported outcomes: results from a phase 2 study in patients with psoriasis treated with ixekizumab

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Introduction: Ixekizumab is a humanized anti-interleukin-17A monoclonal antibody in development for patients with moderate to severe psoriasis, previously shown to be effective in improving clinical symptoms of psoriasis in a phase 2, double-blind, placebo-controlled study.
Objectives: The objective of this analysis was to determine whether greater improvement in Psoriasis Area and Severity Index (PASI) was associated with larger improvements in Dermatology Life Quality Index (DLQI) and pruritus severity (Itch VAS) in patients with moderate to severe plaque psoriasis.
Materials and Methods: Data were from a randomized, double-blind, placebo-controlled phase 2 clinical trial in psoriasis patients ($n = 142$) treated with multiple doses of ixekizumab SC (10, 25, 75, 150 mg dose groups) or placebo. All treatment groups were combined for the analysis. PASI improvement from baseline to week 16 was divided into PASI<75 ($n = 63$), PASI75- < 90 ($n = 15$), PASI90- < 100 ($n = 29$), and PASI100 ($n = 32$) groups. Changes in DLQI and Itch VAS scores from baseline to week 16 were compared between PASI groups using ANCOVA. Logistic models were used to compare those who achieved a DLQI score of 0 between PASI groups.
Results: Significantly greater improvements in Itch VAS and DLQI mean score were observed between groups ($p < 0.05$, all comparisons). Achieving PASI100 and PASI90- < 100 at week 16 was associated with 50.8 and 53.8 point decreases in Itch VAS, respectively, as compared with the 27.1 point decrease for the PASI75- < 90 and the 5.1 point decrease for the PASI<75 group. Similarly, DLQI scores decreased by 9.8 and 9.3 points, for the PASI100 and PASI90- < 100 groups, respectively, compared with the 6.9 point decrease for the PASI75- < 90 group and 2.9 point decrease for the PASI<75 group. Greater than 50% of patients in both the PASI100 and PASI90- < 100 groups reached DLQI of 0 at week 16 compared to 6.7% for the PASI75- < 90 group and 1.6% for the PASI<75 group.
Conclusion: These results suggest that patients with $\geq$90% PASI improvements may achieve significantly higher improvements in quality of life and symptom relief than patients with lesser PASI improvements.
Disclosure of Interest: E. Edson-Heredia Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, S. Banerjee Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, B. Zhu Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, T. Maeda-Chubachi Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, G. Cameron Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, W. Shen Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, K. Gordon Consultant for: Eli Lilly and Company, C. Leonardi Consultant for: Eli Lilly and Company.

P 060

Patient reported outcomes after 16 weeks treatment with subcutaneous ixekizumab in a phase 2 trial in patients with moderate to severe plaque psoriasis

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Introduction: Ixekizumab is a humanized anti-interleukin-17A monoclonal antibody in development for patients with moderate to severe psoriasis, previously shown to be effective in improving clinical symptoms of psoriasis in a phase 2, double-blind, placebo-controlled study.
Objectives: We evaluated the effect of ixekizumab on patient-reported outcomes (PROs) after 16 weeks of treatment with ixekizumab in this trial.
Materials and Methods: A total of 142 patients with chronic moderate-to-severe plaque psoriasis were randomized to receive subcutaneous injections of 10, 25, 75, or 150 mg of ixekizumab or placebo at 0, 2, 4, 8, 12, and 16 weeks. PRO measures assessed included the Dermatology Life Quality Index (DLQI), a pruritus severity item (Itch VAS), 16-item Quick Inventory of Depressive Symptoms – Self Rated (QIDS-SR16), Work Productivity Activity Impairment Questionnaire (WPAI), and Medical Outcomes Study Short Form 36 (SF-36) at Weeks 0, 8, and 16. Treatment group differences in the change from baseline at week 16 in the PRO scores were analyzed using an analysis of covariance (ANCOVA) model with treatment and baseline PRO score using the modified intent-to-treat (mITT) population.
Results: Compared with placebo, all ixekizumab dose groups demonstrated statistically significant ($p < .001$) improvements in DLQI total score and Itch VAS. In addition, ixekizumab demonstrated statistically significant improvements compared with placebo in the QIDS-SR16 total score (75 and 150 mg groups, $p < .05$), WPAI activity impairment (all doses except 10 mg, $p < .05$), and SF-36 Physical Component Summary score (150 mg group, $p < .05$).
Conclusion: Ixekizumab demonstrated significantly greater improvement compared with placebo in PROs related to symptoms and quality of life measures in patients with moderate to severe psoriasis after 16 weeks treatment.
Disclosure of Interest: C. Zachariae Consultant for: Eli Lilly and Company, E. Edson-Heredia Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, J. Erickson Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, G. Cameron Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, B. Zhu Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, R. Matheson Consultant for: Eli Lilly and Company.

P 061

Use of infliximab in 25 Libyan psoriasis vulgaris patients

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Introduction: Psoriasis is a distressing, chronic immune mediated, inflammatory disease that affects skin and joints. It is characterized by infiltration of the skin by activated T cells, abnormal keratinocyte proliferation, cytokines, chemokines, and excessive production of tumor necrosis factor α (TNFα) in the psoriatic lesion. Infliximab is a new chi metric monoclonal antibody that neutralizes the biological activity of TNF-alpha, and recently has been used successfully in the treatment of severe psoriasis and psoriatic arthritis.
Objectives: To evaluate the efficacy and tolerability of infliximab in Libyan patients with severe psoriasis vulgaris and to observe any adverse reaction.
Materials and Methods: Twenty five patients, 15 men(60%) and 10 women (40%) with severe psoriasis vulgaris were enrolled in the study. The patient age range was between 25 and 51 years (Mean 37.7 years). Informed consent was taken from all patients. Each patient was clinically assessed and investigations including complete blood count, serology for HBV, HCV, HIV and tuberculin test and chest X-ray to exclude any TB or serious infections were carried out. Infliximab IV infusion 5 mg/kg was given slowly at weeks 0, 2, and 6, then every 8 weeks. For each patient, psoriasis activities were measured by PASI score (Psoriasis Area Severity Index) at baseline and during the treatment course in order to evaluate efficacy and investigations was done prior to each dose.
Results: Among 25 patients, 2 patients are dropped. Twenty three patients complete the course of management (32 weeks). Mean total score of base line PASI for 23 patients was 32.4(range 9.3–63.7). At 2nd dose (2 weeks), 50% improvement was seen in 56.5% of patients, 75% improvements in 12% of patients and 90% improvement was in only 4%. At 6 weeks, 75% improvement was observed in all cases, 90% improvement in 56% and 100% improvement in 47% of cases. At 4th dose (8 weeks after the 3rd dose), 90% improvement was in 91% of cases. All patients had complete clearance (100% improvements) at 24 weeks. Mild adverse reactions were observed including adverse hypotension in one patient and mild infections in 2 patients (8%).
Conclusion: Infliximab was found to be safe and effective for the treatment of patients with severe and recalcitrant plaque psoriasis with rapid induction phase. Mild reactions including hypotension, mild acute infections has been reported. No serious side effects were reported.
Disclosure of Interest: None declared.

P 062

Etanercept therapy provides rapid relief of psoriasis symptoms in patients of Latin America, Eastern Europe, and Asia

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Introduction: Psoriasis is a chronic inflammatory skin disease affecting 2–3% of the population worldwide. Rapid alleviation of symptoms and determining optimal dosing strategies is critical for the treatment of psoriasis.
Objectives: To assess the time to response of etanercept (ETN) 50 mg once weekly (QW) and ETN50 mg twice weekly (BIW) for psoriasis in patients from six selected countries of Asia, Latin America, and Eastern Europe.
Materials and Methods: One hundred and seventy patients from six selected countries of Latin America, Asia, and Europe (Argentina, Czech Republic, Hungary, Mexico, Taiwan, and Thailand) were included in this subanalysis of the PRISTINE Trial. Subjects with stable moderate-to-severe plaque psoriasis were randomized to blinded ETN 50 mg QW or 50 mg BIW for 12 weeks followed by open-label ETN 50 mg QW through week 24. Concomitant methotrexate was allowed ($\leq$20 mg/week) if doses were

stable for at least 28 days prior to baseline through the end of the study. Only mild topical corticosteroids were permitted on scalp, axillae and groin for first 12 weeks; topical medications (corticosteroids of all potencies, vitamin D analogues and combination products) were allowed as needed for second 12 weeks at physicians' discretion, consistent with "real-world" therapeutic practice.

Results: As early as week 8, 44.4% in the BIW/QW and 26.7% in the QW/QW group achieved PASI 75.At weeks 12 and 24 PASI 75 increased to 66.7% and 83.3% in the BIW/QW group and 39.5% and 62.8% in the QW/QW group, respectively. PASI 75 was significantly different between treatment groups from week 8 through the end of study ($p < 0.05$).The Kaplan-Meier estimate of the proportions achieving first PASI 75 by week 8 was 45.8% and 27.4%; by week 12 was 68.7% and 41.9%, and by week 24 was 95.2% and 72.5% in BIW/QW and QW/QW groups, respectively.

Conclusion: Treatment with ETN provided rapid relief of psoriasis symptoms in patients from Latin America, Asia, and Eastern Europe. A more rapid response was observed in those who received ETN BIW treatment for the first 12 weeks which was sustained after reducing to ETN QW for the subsequent 12 weeks.

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P 063

Treatment satisfaction among patients with psoriasis who were treated with two different dose regimens of etanercept: results from the Pristine study

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Introduction: Patient satisfaction is an important measure of treatment success. Satisfaction and success with treatment are important for psoriasis patients because in addition to the physical burden of skin lesions, psoriasis has been associated with multiple comorbidities.

Objectives: To evaluate patient satisfaction with etanercept (ETN) in the PRISTINE trial of patients with moderate to severe psoriasis.

Materials and Methods: In PRISTINE, patients with psoriasis were randomized to either ETN 50 mg BIW or ETN 50 mg QW for 12 weeks, then took 50 mg ETN QW for an additional 12 weeks. During weeks 13–24, a broad array of topical treatments was allowed. Patients were asked how satisfied they were with ETN's effect on 14 issues related to psoriasis, responding on a 5-point Likert scale (0 = very dissatisfied, 4 = very satisfied) and could also state that an issue was not relevant. Additionally, patients answered an overall yes/no question about whether their psoriasis therapy was satisfactory.

Results: At week 12, 93% of ETN 50 mg BIW/QW patients (n = 133) were satisfied with their treatment versus 83% of ETN 50 mg QW/QW patients (n = 137, p = 0.017); at week 24 satisfaction with treatment was similar between groups with 87% of ETN 50 mg BIQ/QW and 83% of ETN 50 mg QW/QW patients satisfied (p = 0.394); patients treated with ETN 50 mg/BIW/QW were satisfied with all 14 issues whereas patients on the lower dose were satisfied with 11 issues (table).

Mean patient satisfaction with treatment effect on symptoms at week 24

	ETN BIW/QW	ETN QW/QW	
	n = 133	n = 137	p-value
Overall skin appearance	3.2	2.8	0.003
Flaking	3.4	3.0	0.009
Redness	3.3	2.9	0.015
Skin tightness	3.5	3.2	0.067
Bleeding	3.8	3.3	0.018
Skin burning sensation	3.7	3.3	0.020
Skin pain	3.7	3.3	0.019
Joint pain	3.3	3.1	0.237
Personal appearance	3.2	2.9	0.015
Anxiety	3.4	3.2	0.262
Depression	3.3	3.4	0.786
Fatigue	3.1	3.0	0.656
Others' response to appearance	3.4	3.2	0.197
Social and leisure activities	3.4	3.2	0.349

Conclusion: In PRISTINE, patients treated with etanercept expressed satisfaction across 14 issues related to their psoriasis. At week 12 fewer patients on ETN 50 mg QW/QW expressed satisfaction with treatment than those on ETN 50 mg BIW/QW; overall satisfaction in both groups attained similar levels by week 24. Satisfaction with treatment did not increase when a broad array of topical medications were permitted during weeks 13–24.

Disclosure of Interest: W.-R. Lee: none declared, J.-I. Youn: none declared, P. Altmeyer: none declared, L. Mallbris Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, J. Fuiman Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, R. Pedersen Shareholder of: Pfizer Inc, Employee of: Pfizer Inc, R. Boggs Shareholder of: Pfizer Inc, Employee of: Pfizer Inc.

P 064

Study design and baseline characteristics from a phase 3, randomized, double-blind study of adalimumab versus methotrexate treatment in pediatric patients with chronic plaque psoriasis

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Introduction: Regulatory agency-approved treatment options for psoriasis (Ps) pediatric patients (pts) are more limited than for adults, and include both topical and systemic treatments such as methotrexate (MTX) and TNF-alpha inhibitor etanercept (ETN). This study (clinicaltrials.gov; NCT01251614) determines short- and long-term safety and efficacy of TNF-alpha inhibitor adalimumab (ADA) versus MTX in pediatric pts with chronic plaque Ps, time to loss of disease control following treatment withdrawal and post-treatment regain of response.

Objectives: To report study design and baseline characteristics.

Materials and Methods: This multi-site international study includes four periods (Per A-D) following a 30-day screening period. Per A: 16-week double-blind treatment via 1:1:1 randomization to ADA standard dose (0.8 mg/kg [up to 40 mg] sc at baseline then every other week [eow] from week 1); ADA low dose (0.4 mg/kg [up to 20 mg] sc at baseline then eow from week 1); or MTX (weekly with range of 0.1 mg/kg to 0.4 mg/kg [max dose 25 mg/week]). ADA pts received matching oral placebo; MTX pts receive

matching placebo injection. Responders (>PASI 75 and Physician's Global Assessment [PGA] 0/1) at end of Per A proceed to Per B, non-responders proceed directly to Per D. Per B: treatment withdrawal until loss of disease control for a maximum of 36 weeks (> 2 grade worsening of PGA versus week 16A). Per C: 16-week retreatment with ADA (blinded) for pts who experience a loss of disease control in Per B. Per D: 52-week follow-up. Pt eligibility: ages >4 to <18 years; >13 kg body weight; Ps for >6 months; failed topical therapy and required systemic therapy; PGA >4, involved body surface area >20% (or >10% and very thick lesions); and PASI >20 (or >10 and psoriatic arthritis [PsA] unresponsive to NSAIDS, clinically relevant facial, genital, or hand and/or foot involvement, or Children's Dermatology Life Quality Index [CDLQI; range 0–30] >10).

Results: One hunferad and forteen pts enrolled. At baseline, 57% were female; 90% were White. Mean (SD) age was 13 years (3.76), mean (SD) disease duration was 5 years (3.6). One pt had PsA. 33% had family history of Ps. Mean (SD) PASI was 18.3 (8.78). All pts had received prior topical therapies for Ps. Prior systemic treatments included biological therapy with ETN (10%), and non-biologic treatments (30%). Mean (SD) BMI (kg/m^2) was 21.1 (4.89); BMI distribution by age- and sex-adjusted percentiles was 4.4% (<5^{th}), 59.6% (5^{th} to <85^{th}), 14.9% (85^{th} to <95^{th}), 21.1% (>95^{th}). Mean (SD) CDLQI score was 11.3 (6.76), indicating a moderate effect of Ps on quality of life.

Conclusion: Current available baseline data from this fully enrolled ongoing study show that 36% of pts were overweight or obese. Study results will provide information about safety and efficacy of ADA vs MTX treatment in pediatric pts with chronic plaque Ps.

Disclosure of Interest: K. Papp Grant/Research Support from: AbbVie, Consultant for: AbbVie, D. Thaçi Speaker bureau of: AbbVie, Amgen, Biogen-Idec, Celgen, Janssen, Leo, Novartis, Pfizer, Grant/Research Support from: AbbVie, Leo, Pfizer, Consultant for: AbbVie, Leo, I. Landells Speaker bureau of: AbbVie, Amgen, Janssen, Leo, Consultant for: AbbVie, Amgen, Janssen, Leo, K. Unnebrink Employee of: AbbVie, D. Williams Shareholder of: AbbVie, Employee of: AbbVie.

P 065

Broad band UVB versus paint PUVA for palmoplantar psoriasis

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Introduction: Palmoplantar psoriasis is a chronic inflammatory dermatosis resulting in a significant morbidity, affecting 3–40% of psoriatic patients, either as the sole presentation or a part of a more widespread disease. Palmoplantar psoriasis is often recalcitrant, therefore posing a therapeutic challenge. Various treatment modalities have been described, ranging from topical ointments to phototherapy and systemic medications. Several phototherapy options are available including various forms of UVB and PUVA.

Objectives: To compare Broad Band UVB (BB-UVB) versus paint PUVA (p-PUVA) in regard to efficacy and safety in the treatment of palmoplantar psoriasis.

Materials and Methods: This retrospective non-randomized cohort study comprised 250 patients with palmoplantar psoriasis treated in our phototherapy center during 2010–2012. One hundred and tweenty four patients were treated with BB-UVB while 126 were treated with p-PUVA. The treatment results were classified into three groups as follows: no-improvement, partial improvement and complete remission. In the latter group the length of remission was also accessed.

Results: Among the 250 patients included in this study, 50 (39.7%) and 52 (41.9%) reached a complete remission. 66 (52.4%) and 45 (36.3%) responded partially and 10 (7.9%) and 27 (21.8%) patients did not improve under p-PUVA and BB-UVB respectively. Adverse effects such as skin burns and photo toxicity were observed in 24 patients (19%) as opposed to only 14 patients (11.3%) following treatment with p-PUVA and BB-UVB respectively. Consequently, BB-UVB patients suffered from milder skin burns. The number of treatments needed to reach complete remission was higher in the p-PUVA group – 50.4 versus 32.8 in the BB-UVB group. The percentage of complete response patients sustaining the remission for at least 12 months was higher in the p-PUVA group – 34 (68%) patients versus only 17 (53%) patients in the BB-UVB group. The proportion of patients concomitantly treated with other topical and systemic treatments was similar among the two regimens.

Conclusion: Both BB-UVB and p-PUVA represent therapeutic modalities capable of successfully treating palmoplantar psoriasis. P- PUVA emerges as the superior treatment modality in this study, yielding lower treatment failure rates and a more prolonged remission. none theless, BB- UVB persists as a feasible alternative and especially in patients suffering from phototoxic reactions to psoralen.

Disclosure of Interest : None declared.

P 066

Combination therapy of biologics with Dead Sea climatotherapy in psoriasis

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Introduction: Biologics are usually efficacious as mono-therapy in patients with psoriasis, but combination with traditional agents as Phototherapy may increase the speed of onset recovery and even enhance efficacy. As for nowadays, significant additional toxicity was not found in such protocols, but the long-term risks of these two immunosuppressive treatments given together are still alarming. Dead Sea Climatotherapy (DSC) is a well known and successful natural method of treatment, sometimes administered to patients already treated by systemic drugs, including biologics.

Objectives: To assess the results of DSC in a sub-group of patients suffering from psoriasis and under biologic treatment and to compare them to those obtained with a DSC only. To carefully monitor any manifestation of side effect during the treatment.

Materials and Methods: The files of 229 patients treated at the DMZ Medical Center between the years 2008–2012 and suffering from plaque psoriasis and psoriatic arthritis were retrieved from the database of the Research Institute at the Dead Sea (RIDS). They were divided in two groups, group A (n = 190) and B (n = 39), according to whether the patient received, at beginning of and during DSC, no systemic treatment or a biologic agent. The primary outcome for the assessment of DSC was Psoriasis Assessment of Severity Index of 95 (PASI 95), which indicates the percentage of patients for which PASI improvement reached 95%. Logistical regression was used to identify the factors that related to the observed outcome.

Results: By the end of DSC, after an average duration of 30 days, 139 patients (73.1%) in group A reached PASI 95 in comparison to 35 (89.7%) in group B. The 95% confidence interval for the odds ratio (OR) of the effect in group B in comparison to that of group A was [0.11–0.92], which implies that group B responded better to treatment. No significant side effects were recorded in both groups.

Conclusion: Combination therapy was found better than DSC alone, administered to less severely ill patients, not receiving biologic therapy. DSC can safely be proposed - for now - to patients with plaque psoriasis

and arthritis receiving biologic treatment. Further follow-up studies are mandatory in order to define the possibilities to reduce or to stop biologic treatment before or after DSC as well as to discern eventual long term side effects.

Disclosure of Interest: None declared.

P 067

Natural phototherapy of psoriasis at the Dead Sea in Jordan

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Introduction: Ultra violet light is electromagnetic radiation, the longer the wave lengh the deeper UVA penetrates in the dermis to the fibroplast. T-cells, endothelial and mastcells.
The shorter the wave length(UVB) the more reflection penetrates superficial in the epidermis to the keratinocytes and Langerhans cells.
The Dead Sea is far away from the sun 425 m below sea level (lowest place on earth),less UVB more UVA.
The Northern basin of the Dead Sea has 29% concentration of salts and minerals, which has a keratolytic effect and makes the skin more sensitive to sunlight.
The atmosphere is rich in oxygen and bromide, the relative humidity is low, the atmospheric pressure is high and relatively constant.
A haze over the Sea helps filtering out some of the UVB rays.these natural unique properties are utilized to treat different diseases such as psoriasis and psoriasis arthritis
Objectives: The aim of this study is to proof the efficacy of climatotherapy at the Dead Sea and to show that this therapy is a real alternative in treating psoriasis.
The treatment consists of gradually increasing sunlight exposure and bathing in the Dead Sea, olive oil, oil baths, lubricants and keratolytic agents are used topically, ointments are applied if needed.
Materials and Methods: We compared the clinical efficacy of climatotherapy (heliotherapy in combination with balneotherapy) with heliotherapy alone in patients affected by relapsing plaque-type psoriasis.
Results:
Climatotherapy:
344 patients were enrolled in this study:
30% complete clearance:
52% significant clearance:
16% moderate clearance:
2% slight improvement or no change:
Heliotherapy:
52 patients were enrolled in this study:
18% complete clearance:
41% significant clearance:
38% moderate clearance:
3% slight improvement:
Conclusion: The follow up of 124 patients showed that the majority maintained a clearance for longer time compared to other modalities of therapy (6.1 months on average).
Sunlight is often the optimal source of UV light, it is least expensive and most effective.
Heliotherapy alone is less effective than Climatotherapy.
Climatotherapy at the Dead Sea in Jordan is a modality of treatment with efficacy and safety, which leads to significant improvement.
Disclosure of Interest: None declared.

COMORBIDITIES IN PSORIASIS

P 068

Subclinical atherosclerosis, vascular dysfunction and abnormal LV myocardial deformation is similar between patients with psoriasis and no hypertension and patients with untreated hypertension

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Introduction: Psoriasis has been associated with an increasing risk for atherosclerosis, including coronary artery disease. CAD is an important cause of morbidity and mortality in patients with psoriasis.
Objectives: We investigated whether surrogate markers of subclinical atherosclerosis, vascular dysfunction and LV myocardial dysfunction are impaired in patients with psoriasis.
Materials and Methods: We compared 59 patients with psoriasis and no hypertension (PS) with 59 patients with untreated hypertension (HYP) and 40normal subjects (*N*) with similar age and sex. In all patients and controls we measured (a) the carotid-femoral pulse wave velocity using the Complior apparatus (PWVc) and augmentation index (AI) pulse wave velocity (PWVa) and using the oscillometric method (Arteriograph, TensioMed) (b) coronary flow reserve of the LAD (CFR) by Doppler echocardiography (c) carotid intima-media thickness (IMT) by ultrasonography (d) global LV longitudinal strain (GLS) and strain rate (GLSR), using speckle tracking echocardiography. The PASI score an index of the extent of psoriatic lesions, was estimated in patients with psoriasis
Results: Patients with psoriasis had higher PWVc,PWVa, AI, IMT, and lower CFR, LGS and LGSR than normals ($p < 0.05$) but similar values of these markers with untreared hypertensives ($p = ns$) (PWVc-m/sec: 8.6 ± 1.5 [*N*] vs. 10.5 ± 1.5 [HYP] vs. 10.4 ± 1.8 [PS], PWVa- m/sec 7.3 ± 1.6[*N*] vs. 9.5 ± 1.5 [HYP] vs. 9.6 ± 2.8 [PS] m/sec, AI).
Conclusion: Patients with psoriasis have similarly impaired markers of subclinical atherosclerosis, vascular function and LV myocardial deformation with patients with untreated hypertension when compared with healthy subjects. The extent carotid atherosclerosis is related with severity of psoriasis. Increased arterial stiffness is related with abnormal coronary microcirculation and LV deformation in patients with Psoriasis
Disclosure of Interest: None declared.

P 069

Relationship between body mass index and activity of psoriasis. Psorisk study

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Introduction: Inflammation is an underlying process in both psoriasis and obesity, and the prevalence of obesity is known to be increased in psoriasis patients.

Objectives: To assess the relationship between body mass index (BMI) and several indexes of current and past activity of psoriasis in a population of patients with psoriasis under systemic therapy.
Materials and Methods: Cross-sectional study on patients aged $\geq$18 years with psoriasis attending hospital dermatology clinics and treated with systemic therapies. Several characteristics were used to describe the severity of psoriasis on the day of the visit and through the patients' course of disease, and their correlation with current BMI was analyzed.
Results: Three hundred and sixty eight patients (mean age: 48.4 years [SD: 14.1]; 63.9% males, 36.1% females) were recruited in 33 hospitals. The number and percentage of patients with normal weight (BMI < 25), overweight and obesity (BMI $\geq$ 30) were 92 (25.0%), 157 (42.7%) and 119 (32.3%), respectively. The table displays the different indexes of activity stratified by BMI. Obese patients had higher PASI values and were more likely to have PASI >10, although there were no differences in the treatments they were receiving. Activity of psoriasis over the course of the disease, estimated according to PGA and percentage of time with activity, was similar regardless of BMI, but more patients with obesity had required systemic therapy or phototherapy during >50% of time. Overweight and obese patients were more likely to have been admitted to hospital because of psoriasis flares. Finally, the perception of activity reported by the patients was similar among the three groups.

	Normal weight (BMI <25)	Overweight (BMI 25–29,9)	Obesity ($\geq$30)	p-trend
PASI index on day of visit, mean (SD)	4.2 (5.8)	4.5 (5.3)	5.7 (6.3)	0.055
Percentage with PASI >10 in current visit	10.9%	14.0%	20.2%	0.056
Treatment in current visit				
Topic treatments	84.8%	87.9%	75.6%	0.061
Non-biological systemic treatments	76.1%	81.5%	79.0%	0.692
Biological systemic treatments	59.8%	61.8%	63.9%	0.543
Percentage with >50% of time with active disease according to physician's evaluation	63.0%	61.8%	68.9%	0.320
Percentage with overall moderate-sever disease according to history (PGA assessment)	56.5%	54.1%	58.0%	0.777
Percentage with >50% time with systemic therapy or phototherapy	29.3%	35.7%	42.9%	0.040
Percentage with hospital admission due to psoriasis flares	4.3%	10.8%	11.8%	0.064
Assessment of maximum activity by patient, 0–100, mean (SD)	74.6 (20.8)	76.6 (19.5)	77.1 (20.3)	0.380
Assessment of current disease activity by patient, 0–100, mean (SD)	22.4 (28.9)	18.4 (23.8)	24.1 (26.4)	0.539

Conclusion: Several measures of current and past activity of psoriasis were higher (PASI value) or more frequent (PASI>10, patients requiring systemic therapy >50% of the time, hospital admissions) among those with higher BMI. BMI seems to condition the course of psoriasis and a more intensive therapeutic approach.
Disclosure of Interest: None declared.

P 070

Adiponectin receptor expression in keratinocytes of psoriasis patients with respect to metabolic syndrome

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Introduction: Receptors for the adiponectin hormone namely ADIPOR1 & ADIPOR2 are expressed predominantly in adipose tissue. Earlier studies have shown decreased serum adiponectin levels in patients with psoriasis. ADIPOR1 expression in the epidermis of psoriasis patients has already been demonstrated.
Objectives: This study was undertaken to observe the adiponectin receptor expression pattern in psoriasis patients with and without metabolic syndrome (MetS) and controls free from any skin disease or inflammatory disease. Patients with acanthosis nigricans (AN) secondary to insulin resistance, a component of MetS were also included in the controls to study a possible association with adiponectin receptors.
Materials and Methods: We studied serum insulin, serum adiponectin levels and adiponectin receptor expression by immunohistochemistry in keratinocytes of five controls and 20 psoriatics (9 with MetS and 11 without MetS) from lesional and uninvolved skin. Among the controls two were free from skin lesions and MetS and three had AN secondary to IR a component of MetS. ADIPO R1 & R2 intensities were graded from faint to 4 + . Pattern of expression was described as (a)basal positivity,(b) focal loss with positivity in all layers and (c)complete loss.
Results: A significant difference in the pattern and intensity of expression between psoriasis lesions and normal skin from controls ($p = 0.000$, $p = 0.000$) was observed. Normal skin expressed both ADIPOR1 and ADIPOR2 in all layers except stratum corneum. Majority of psoriatic lesions showed positivity in all layers with focal loss of expression. There was also a significant reduction in expression and intensity of ADIPOR1 and ADIPOR2 in uninvolved skin of psoriatics when compared to normal skin in controls and in AN lesions ($p = 0.000$). We observed no significant difference in the intensity and expression from lesions in patients with and without MetS.
Conclusion: There was reduced adiponectin receptor expression in psoriatic lesions irrespective of MetS. Both normal controls and AN lesion biopsies showed similar receptor expression and not reduced like in the psoriatic lesions, suggesting that adiponectin receptors may be involved in the pathogenesis of psoriasis irrespective of the presence of MetS. Thus adiponectin may be a therapeutic target in psoriasis.
Disclosure of Interest: None declared.

P 071

Autoimmune thyroid disorders in patients with psoriasis

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Introduction: A few studies have shown a high prevalence of thyroid autoimmunity in patients with psoriatic arthritis. However, thyroid autoimmunity has not been investigated in patients with psoriasis who do not have psoriatic arthritis.
Objectives: We aimed to investigate thyroid autoimmunity in patients with psoriasis.

Materials and Methods: The study included 105 consecutive patients with psoriasis who did not have psoriatic arthritis and a sex and age matching control group consisting of 96 patients with tinea pedis. All of the patients with psoriasis were examined dermatologically and PASI scores were calculated for each patient. Free triiodothyronine (FT3), free thyroxine (FT4), thyroid stimulating hormone (TSH), antithyroglobulin (AbTG), and antithyroidperoxidase antibody (AbTPO) levels were measured in all of the subjects. The levels of TSH, FT3, FT4, AbTG and AbTPO and ultrasonographic findings of thyroid gland were compared statistically between psoriasis and control groups. Also, the levels of TSH, FT3, FT4, AbTG and AbTPO of psoriasis patients were compared with PASI scores. Mann-Whitney U test was used as statistical method.
Results: The mean age of patients with psoriasis was 40.54 ± 16.91 years. 56 patients were female, 49 were male. The levels FT4 were found to be significantly increased in the patient group. But levels of AbTPO and AbTG were not statistically different between the two groups. The patients who had thyroiditis plus nodules in thyroid ultrasonography had statistically longer disease periods.
Conclusion: This is the first study that investigated autoimmune thyroid disorders in patients with psoriasis who did not have arthritis. We believed that thyroid autoimmunity in patients with psoriasis was no different from that found in healthy individuals.
Disclosure of Interest: Ü. Gül Shareholder of: study planner, Implementers and author, M. Gönül Consultant for: assisting in the study.

P 072

Subclinical atherosclerosis, vascular dysfunction and abnormal LV myocardial deformation is similar between patients with psoriasis and no hypertension and patients with untreated hypertension

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[1]Department Of Cardiology, Athens Medical Scool Attikon Hospital, Athens, Greece; [2]Department Of Dermatology And Venereology, Athens Medical Scool Attikon Hospital, Athens, Greece

Introduction: Psoriasis has been associated with an increasing risk for atherosclerosis, including coronary artery disease. CAD is an important cause of morbidity and mortality in patients with psoriasis.Psoriasis has been associated with an increasing risk for atherosclerosis, including coronary artery disease. CAD is an important cause of morbidity and mortality in patients with psoriasis.
Objectives: We investigated whether surrogate markers of subclinical atherosclerosis, vascular dysfunction and LV myocardial dysfunction are impaired in patients with psoriasis.
Materials and Methods: We compared 59 patients with psoriasis and no hypertension (PS) with 59 patients with untreated hypertension (HYP) and 40 normal subjects (*N*) with similar age and sex. In all patients and controls we measured (a) the carotid-femoral pulse wave velocity using the Complior apparatus (PWVc) and augmentation index (AI) pulse wave velocity (PWVa) and using the oscillometric method (Arteriograph, TensioMed) (b) coronary flow reserve of the LAD (CFR) by Doppler echocardiography (c) carotid intima-media thickness (IMT) by ultrasonography (d) global LV longitudinal strain (GLS) and strain rate (GLSR), using speckle tracking echocardiography. The PASI score an index of the extent of psoriatic lesions, was estimated in patients with psoriasis.
Results: Patients with psoriasis had higher PWV, PWVa, AI, IMTand lower CFR, LGS and LGSR than normals($p < 0.05$) but similar values of these markers with untreared hypertensives($p = ns$) (PWVc-m/sec:8.6 ± 1.5[*N*] vs.10.5 ± 1.5[HYP]vs.10.4 ± 1.8[PS], PWVa-m/sec:7.3 ± 1.6[*N*]vs.9.5 ± 1.5[HYP]vs.9.6 ± 2.8[PS]m/sec, AI
Conclusion: Patients with psoriasis have similarly impaired markers of subclinical atherosclerosis, vascular function and LV myocardial deformation with patients with untreated hypertension when compared with healthy subjects. The extent carotid atherosclerosis is related with severity of psoriasis. Increased arterial stiffness is related with abnormal coronary microcirculation and LV deformation in patients with Psoriasis.
Disclosure of Interest: None declared.

P 073

Cardiovascular disease risk profile in psoriasis patients with and without treatment response in the pristine study

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Introduction: Psoriasis is associated with an increased risk of systemic comorbidities, including cardiovascular disease. Underlying mechanisms for this risk and treatment effects have not yet been fully explained.
Objectives: In this subanalysis of the PRISTINE trial (NCT00663052), metabolic syndrome and other cardiovascular disease risk factors were assessed in psoriasis patients based on response to etanercept treatment.
Materials and Methods: Patients ± 18 years old with moderate-to-severe plaque psoriasis were randomised to receive either etanercept 50 mg once or twice weekly double-blind for 12 weeks; all patients received etanercept 50 mg once weekly open-label for the subsequent 12 weeks. Demographic and cardiovascular disease risk factors were assessed at baseline in patients who achieved ≥75% PASI improvement (PASI75) at week 24 (responders; n = 186) and in patients who did not (non-responders; n = 84). These response subgroups were further analyzed for metabolic syndrome and related risk factors based on gender and history of psoriatic arthritis (PsA).
Results: At baseline, responders and non-responders had a mean age of 43.3 and 45.3 years, respectively; BMI, 28.2 and 29.9 kg/m^2 ($p = 0.031$); systolic/diastolic blood pressure, 125.4/78.5 and 130.4/82.1 mm Hg ($p = 0.009$); PASI, 22.1 and 19.1 ($p = 0.009$); and DLQI, 13.8 and 16.2 ($p = 0.023$). Non-responders were significantly more likely to have diabetes, hypertension, metabolic syndrome, or large waist circumference at baseline than responders (Table 1). Significant differences between responders and non-responders in metabolic syndrome and large waist circumference were observed in men but not in women and in patients without PsA but not in those with PsA.
Conclusion: Psoriasis patients who did not achieve a response after 24 weeks of etanercept treatment had significantly less severe skin disease at baseline but worse quality of life and cardiovascular disease risk profiles

Table.1: Proportions of responders vs non-responders with cardiovascular disease risk factors at baseline.

Risk Factor	% of Responders	% of Non-Responders	p Value
Diabetes	10.2	19.0	0.046
Hypertension	34.4	44.0	0.032
Metabolic syndrome	36.6	52.4	0.015
Large waist circumference	65.4	81.7	0.007
Low HDL-cholesterol	23.7	28.6	0.390
Elevated triglycerides	33.3	34.5	0.848
Elevated blood pressure	57.5	67.9	0.108
Elevated glucose	26.9	34.5	0.202

than those who did achieve a treatment response. Further research is needed to evaluate the relationship between psoriasis and comorbid illness and the impact of treatment response.

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P 074

Prevalence of major cardiovascular risk factors in patients with psoriasis under systemic therapy in Spain. Pso-risk study

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Introduction: The prevalence of cardiovascular risk factors (CVRF) in psoriasis patients is higher than in general population, but this aspect has never been studied in Spain.

Objectives: The main objective of the PSO-RISK study was to describe the prevalence of major CVRF in patients with psoriasis under systemic therapy.

Materials and Methods: Cross-sectional study on patients aged $\geq$18 years with psoriasis attending hospital dermatology clinics, and treated with systemic therapies. Data were collected through direct interview, patient's clinical record review, blood pressure (BP) measurement and laboratory tests. Taken all these data, we used the definition of international Societies for the diagnosis of each CVRF.

Results: In 33 hospitals, 368 patients were recruited (mean age 48.4 years [SD: 14.1]; 63.9% males, 36.1% females). Median duration of disease was 19.2 years (IQR: 10.0-25.0). Mean PASI index was 2.7 (IQR 0.9–6.8). The majority of patients had plaque psoriasis (95.9%). In total, 80.2% of the patients had at least one major CVRF (29.1% had 1 CVRF; 27.2% had 2 CVRF; 17.4% had 3 CVRF; 5.7% had 4 CVRF and 0.8% had 5 CVRF). The proportion of patients with obesity (BMI >=30 kg/m^2) was 32.3% (men: 34.0% and women: 29.3%, p = 0.352). Additionally, 45.5% of men and 37.6% of women had overweight (BMI $\geq$25 to <30 kg/m^2). Smoking habit was present in 30.2% (men: 31.5%; women: 28.0%, p = 0.484). The proportion of patients with hypertension, hypercholesterolemia and diabetes mellitus was 41.8% (men: 45.1%; women: 36.1%, p = 0.092), 41.6% (men: 40.4%; women: 43.6%, p = 0.552), and 16.6% (men: 17.9%; women: 14.3%, p = 0.374), respectively. The prevalence of each CVRF, except smoking, increased with age (p-trend for all the CVRF, table). Even those patients in the younger range of age (<45 years) showed significantly high prevalences of major CVRF like hypertension (22.6%), obesity (25.8%) or hypercholesterolemia (30.2%, table).

	<45 years	45-54 years	55-64 years	$\geq$65 years
At least one CVFR	69.2%	85.2%	89.6%	90.7%
Smoking	37.1%	36.4%	22.4%	9.3%
Obesity	25.8%	38.6%	32.8%	40.7%
Diabetes mellitus	5.7%	13.6%	32.8%	33.3%
Hypercholesterolemia	30.2%	45.5%	52.2%	55.6%
Arterial hypertension	22.6%	44.3%	58.2%	74.1%

Proportion of patients with CVRF stratified by age. p-trend <0.001 for all the variables except for obesity.

Conclusion: In patients with psoriasis under systemic therapies, 80.2% had at least one CVRF. The prevalence of each CVRF except smoking increased with age, but CVRF were frequent even in the younger population. This study highlights the high prevalence of CVFR in psoriasis patients, and the importance of the dermatologist in detecting CVRFs in patients with psoriasis, as many psoriasis patients are relatively young.

Disclosure of Interest: None declared.

P 075

Tuberculosis, an independent risk factor for psoriasis, or a binomial relationship? Retrospective case control studies

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Introduction: Is there any correlation between psoriasis and tuberculosis? Case control studies.

Objectives: Two retrospective studies, which covered periods of eight and four years respectively, were carried out in order to search the possible association of tuberculosis and psoriasis in Romania.

Materials and Methods: The first study was conducted in 2011, by searching all medical records of 1236 patients (addressed to Dermatology Department) over a period of 8 years (2004-2011), looking for the incidence of tuberculosis (at the moment of the medical visit or during their medical history).

The second retrospective study was carried out in Pneumology Hospital, by screening al 3820 patients hospitalized between 2009 and 2012 (more precisely between 1st of January 2009 and 31st of December 2012) with all clinical forms of tuberculosis: 3820**.** We looked into the medical papers to find noted psoriasis as a second diagnosis at the moment of hospitalization or in the medical history of the patient.

Results: -Of 1236 patients diagnosed with psoriasis: co morbidities were present in 40.78% of cases, and 12 of patients (0.97%) had a history of tuberculosis.

- Of 3820 patients with tuberculosis: 8 were treated for psoriasis:

Conclusion: Given the very low association of the two mentioned diseases, active surveillance for history of untreated tuberculosis and further studies that could contribute to clinical applications are needed.

Disclosure of Interest: None declared.

P 076

Vitamin D status in patients with psoriasis and rheumatoid arthritis; association with disease activity and serum level of TNF-α

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Introduction: Vitamin D deficiency has been associated with increased risk of autoimmune diseases including rheumatoid arthritis (RA). Psoriasis has

been considered mainly to be a T helper (Th) 1-driven autoimmune inflammatory disease.
Objectives: We aimed to study vitamin D status in psoriasis and RA patients, and to study whether there is association with both disease activity and serum level of tumor necrosis factor (TNF)-α.
Materials and Methods: This study was conducted at Riyadh National Hospital, Riyadh, Saudi Arabia between March and September 2012. It included 43 patients with moderate to severe plaque psoriasis, 55 rheumatoid arthritis patients and 40 healthy controls matched for age and sex. Blood samples were drawn from all participants for measurement of 25-hydroxyvitamin D [25(OH)D], parathyroid hormone (PTH), serum calcium, c-reactive protein (CRP), erythrocyte sedimentation rate (ESR), and TNF-α. Disease activity of psoriasis and RA was assessed using Psoriasis Area and Severity Index (PASI) and Disease Activity Score Index (DAS28) respectively.
Results: We found a significant difference between psoriasis patients, RA patients, and controls in the mean 25(OH)D (11.74 ± 3.60 ng/ml, 15.45 ± 6.42 ng/ml, and 24.55 ± 11.21 ng/ml respectively, $p = 0.000$). All patients with psoriasis had 25(OH)D < 20 ng/ml, while 83.6% of RA patients and 40% of controls had 25(OH)D < 20 ng/ml. DAS28 and TNF-α were negatively correlated with 25(OH)D in RA patients ($r = -.299$, $p = 0.02$ and $r = -.338$, $p = 0.01$ respectively). However there was no significant correlation between PASI or TNF-α and 25(OH)D in psoriasis patients.
Conclusion: Serum vitamin D was lower in moderate to severe psoriasis patients compared to RA patients. There was association between vitamin D deficiency and both disease activity and TNF-α in RA which may highlight an association between vitamin D deficiency and inflammatory state.
Disclosure of Interest: None declared.

P 077

Association between the apolipoprotein E (ApoE) gene polymorphism, the serum apoe and the metabolic syndrome with psoriasis

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Introduction: Psoriasis has been recognized as systemic disease with multiple comorbidities. The metabolic syndrome (MS) is one of its comorbidities as well as its individual components. Psoriasis is associated with abnormal plasma lipid metabolism. Because apolipoprotein E (ApoE) is involved in lipid metabolism, ApoE gene variants could be candidates to influence psoriasis-risk. However, data about the potential influence of the ApoE genotypes in psoriasis are inconclusive.
Objectives: Our objective was to investigate whether the ApoE gene polymorphism is involved in the genetic predisposition to psoriasis with special emphasis on its relation to the disease phenotype and severity. We also sought to compare psoriatic patients with and without MS, regarding the Apo E levels and the Apo E gene polymorphism.
Materials and Methods: This case-control study involved 100 patients with psoriasis and 100 age and sex matched apparently healthy controls. All subjects were genotyped for the ApoE-e2/e3/e4 polymorphism, and allele and genotype frequencies were statistically compared between the two groups. Serum Apo E concentration was detected in both groups and these findings were correlated with clinical criteria such as disease severity (estimated by PASI score), disease duration and criteria of MS.
Results: Serum Apo E level was statistically significant lower in patients (0.8 ± 0.38 μg/ml) than in controls (1.43 ± 0.38 μg/ml) ($p < 0.001$). Our results showed no significant variation in the distribution of patients with and without MS among the different Apo E genotypes. We observed a higher frequency of the E4 allele ($p = 0.001$) with the predominance of the E3/E4 and E4/E4 genotypes in patients with psoriasis. This study also found an association between e4 allele and severe forms of psoriasis, PASI score was statistically significant higher in patients with the e4 allele compared to patients with other gene alleles ($p = 0.003$). Multivariate logistic regression analysis was done to test the independent predictors among the items of MS and ApoE and the occurrence of psoriasis among the study and revealed a statistically significant lower serum Apo E in patients in comparison to controls ($p < 0.001$) (OR=0.006).
Conclusion: An association between the e4 variant of ApoE and psoriasis has been found which may implicate a pathogenic role for ApoE in psoriasis. These findings may explain the higher incidence of dyslipidaemia in psoriasis. ApoE-e4 could be a risk factor for developing severe form psoriasis.
Disclosure of Interest: None declared.

P 078

Report of the prevalence of metabolic syndrome in Croatian psoriasis patients

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Introduction: Many epidemiological surveys revealed the association of psoriasis and metabolic syndrome (MS). Some reports even suggest that psoriasis is an independent risk factor of cardiovascular incident. According to the recently published systematic review and meta-analysis (Armstrong AW, JAAD 2013), psoriasis patients have higher prevalence of MS when compared with the general population, and patients with more severe psoriasis have greater odds of MS than those with milder psoriasis.
Objectives: Our aim was to investigate the prevalence of MS among the psoriasis patients in a nationally representative cross-sectional sample.
Materials and Methods: The research of the prevalence of MS in psoriasis patients was performed through a hospital-based cross-sectional study in the Naftalan - Special Hospital for Skin and Rheumatic Diseases and at the University Department for Dermatovenereology, University Hospital Center Zagreb, Croatia, on a total of 86 consecutive patients with psoriasis vulgaris, 40 women and 46 men. The age median (IQR) of the patients was 48 years (38.25–61.75). 59 patients had type 1 and 27 patients had type 2 psoriasis. The average duration of disease was 17.32 ± 11.47 years. MS was diagnosed according to the International Diabetes Federation (IDF) criteria and the National Cholesterol Education Program-Third Adult Treatment panel III (ATP III).
Results: The prevalence of MS among the inpatients and outpatients with psoriasis vulgaris treated in our institutions was 53.49% (42.50% in women and 60.87% in men) according to the IDF criteria, and 31.40% (25.00% in women and 36.96% in men) according to the ATP III program. Central obesity was found in 75.58% (waist circumference ≥ 94 cm for men; ≥ 80 cm for women) in the IDF criteria and 50.00% patients according to the NCEP-ATP III criteria (≥ 102 cm for men, ≥ 88 cm for women). Blood pressure was raised in 58.14%, raised FPG/type 2 diabetes were found in 52.33% according to the IDF and 29.07% according to the ATP III criteria, raised triglycerides in 36.05% patients, and HDL was low in 26.74% of the psoriasis patients. Besides, 22.95% patients were smokers and 19.67% reported alcohol consummation.
Conclusion: Psoriasis patients treated in our institutions have higher prevalence of MS than it was found in the MS prevalence study on the representative sample of the Croatian adult population (Vuletić S, Acta Medica Croatica, 2007), reporting 8, 8% prevalence in the age group 35–64 years (9.9% in women and 7.7% in men). Therefore, physicians should be encouraged to screen psoriasis patients for cardiovascular

co-morbidities. Since this study included only the patients regularly treated in the hospitals, which assumes that they were patients with more severe forms of disease, our results support the finding that patients with more severe psoriasis have greater odds of MS than those with milder form of disease.

Disclosure of Interest: None declared.

P 079

Psoriasis and comorbidities in Tunisian population

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Introduction: Psoriasis is a chronic inflammatory disease that affects the quality of life and also reduces life expectancy. This hazardous effect can be the consequence of the psoriasis itself or some comorbidities like metabolic syndrome and cardiovascular diseases. Identifying those associated pathologies is useful for the understanding of the psoriasis and also its management.

Objectives: Identifying the frequency of diabetes, hypertension, android obesity, hypertriglyceridemia and androgenetic alopecia among a population of psoriatic patients.

Materials and Methods: We conducted a cross-sectional epidemiological study with 100 psoriatic patients who consulted dermatology department of Farhat Hached hospital in Sousse, Tunisia between August 2012 and January 2013: the collect of data was based on clinical examination and a blood sample for the lipid analyses.

Results: We assessed 100 cases of psoriatic patients. Average age was 43 $\pm$ 17, 94 years. The sex ratio was 0, 85. The most of our patients had plaque psoriasis (76%), erythrodermic psoriasis (10%), arthropatic psoriasis (10%), inverse psoriasis (2%) and pustular psoriasis (2%). Concerning the metabolic syndrome: 55.4% of patients had at least 1 criterion, 2.2% had the 4 criteria, 7.6% had 3 criteria and 25% had 2 criteria. Diabetes was found in 15% of patients, 13 of them had type 2. Dyslipidemia was detected for 32.6% of patients, the third of them was not diagnosed yet. We founded also hypertension in 27% of patients.The android obesity was noticed for 45% of patients. In addition, 4% of patients had acute coronary accidents, 8% drinks alcohol and 23.2% are current smokers.

We noticed also that 64% of patients aged up to 18 had androgenetic alopecia and 52.4% of them had type 4 alopecia in their families. Concerning the classification of the andrgenetic alopecia: 22.2% of patients had type 1, 33.3% had type 2 and 25.9% had type 4.

Conclusion: Psoriasis is a chronic and debilitating inflammatory disease associated with serious comorbidities. Emerging comorbidities of psoriasis include cardiovascular disease and metabolic syndrome. Our study confirm the increased prevalence of these pathologies in tunisian psoriatic population. The dermatologist in most cases is the primarily consulted physician for patients with psoriasis and he is responsible for the early diagnosis of comorbidities and insuring their appropriate management.

Disclosure of Interest: None declared.

P 080

Fatal acute respiratory distress complicating generalized pustular psoriasis

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Introduction: Generalized pustular and/or erythrodermic psoriasis may have severe or even lethal complications. A noninfectious acute respiratory distress syndrome has been described in generalized pustular psoriasis.

Objectives: We report a new case in a 20-year-old girl with a long history of pustular psoriasis and review the published work on this complication.

Materials and Methods: 20-year-old girl with a long history of pustular psoriasis since the age of 16 treated with acitretin was admitted for a febrile generalized putular eruption.

The dermatological examination showed a rapidly generalized spreading erythema and exfoliation with coalescent pustules. The woman also showed high temperature. Laboratory findings were neutrophil leukocytosis, elevated C-reactive protein and low calcium level. Intravenous vancomycine, cefotaxime and gentamycine were quickly initiated in addition to acitretin without any change.

2 days after her admission, the woman's respiratory function deteriorated markedly with polypnea, arterial hypoxia and respiratory alcalosis.The Chest x- ray showed bilateral alveolar condensation of the upper lobes and mild right-sided pleuresy. Non invasive ventilation with continuous positive airway pressure was indicated in addition to changing antibiotics into ciprofloxacin and imipeneme. Within 72 hours and without any improvement, prednisone was started (1 mg/kg/day), however after 24 hours, she developed an acute respiratory distress syndrome inducing a cardiac arrest and thus the death in spite of the reanimation.

Results: Pustular psoriasis of the von Zumbusch type is characterized by sudden generalized eruption of sterile pustules with high fever which can be life threatening. Respiratory manifestations, liver failure or even ocular symptoms are most probably linked to neutrophils invasion and the proinflammatory cytokines especially tumor necrosis factor-alfa, which could play a role in the recruitment of lymphocytes.

The patients with acute respiratory distress showed, like in our case, rapid respiratory deterioration with tachypnea and arterial hypoxemia in a febrile context and an elevation of circulating neutrophils.

Mechanical ventilation was often necessary, as in our case. Several cases of cardiac arrest have been reported as well, but the link between interstitial pneumopathy and cardiac arrest need to be determined as patients deteriorate quickly and require transfer to an intensive care unit. Recent cases have clearly shown that corticosteroid therapy, when rapidly initiated at high dose, leads to a dramatic improvement in clinical and radiological status within days. However, in spite of reanimation care and high corticotherapy, our patient died in 24 hours.

Conclusion: Generalized pustular psoriasis can have fatal complications. These manifestations appear to be related to neutrophilic infiltration. Dermatologists should be aware of these associations to avoid fatal issues of this severe pathology.

Disclosure of Interest: None declared.

P 081

A novel system for estimating the metabolic syndrome in patients with psoriasis

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Introduction: Psoriasis is now well known to be associated with comorbidities including psycho-social consequences and obesity giving rise to a metabolic syndrome.

Objectives: The aim of this study is to test a new computerized conversational system in order to evaluate the level of obesity in patients with psoriasis as compared to a normal population.

Materials and Methods: One hundred and seven patients (53 females and 54 males) aged 48.76 + −14.93 years (range 23–74) attending our new outpatient psoriasis center were included in the study at random of their consultation in the department of dermatology. They were submitted to a new

conversational computer assisted device automatically measuring and recording the following parameters: height, weight, systolic and diastolic blood pressures, cardiac rhythm, appraising of lipid mass. This health managing system (Life Clinic Europe Inc.) is able to calculate, to record and print the body mass index and the body fat percentage. All the printed Results:are given to the patients with the normal ranges according to sex and age with medical and diet advices.

Results: As compared to a maximum of 25, the mean body mass index is 27.64 + −5.34 (27.30 + −5.56 in women and 27.98 + −5.15 in men) exceeding the maximum by a mean of 2.64 (2.30 in women and 2.98 in men). The maximum body fat percentage corrected with sex and age is 28.10 + −6.34% (34.25 + −7.23% in women and 22.07 + −2.09% in men) in the normal non psoriatic population. In our group of patient, the mean body fat percentage is 31.84 + −8.58% (36.60 + −7.32% in women and 27.17 + −7.13% in men) exceeding the maximum of a normal population by a mean absolute percentage of 3.74% (corrected = 13.30%).

Conclusion: These results significantly confirm the increased level of obesity in patients suffering from psoriasis as compared to a normal population. They are obtained with a new, fully automated, conversational system.

Disclosure of Interest: None declared.

P 082

Underdiagnosis of cardiovascular risk factors in patients with psoriasis under systemic therapy in Spain. Pso-risk study

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Introduction: Patients with psoriasis have a higher prevalence of cardiovascular risk factors (CVRF) than the general population. Since many patients with incident psoriasis are young, the dermatologist can play an active role in their detection.

Objectives: To assess the rates of underdiagnosed CVRF (CVRF detected in patients with no previous diagnosis or treatment) in a population of patients with psoriasis under systemic therapy.

Materials and Methods: Cross-sectional study on patients with psoriasis aged ≥18 years attending hospital dermatology clinics, and treated with systemic therapies. Data were collected through direct interview, clinical records review, blood pressure (BP) measurement according to European recommendations and laboratory determinations. We studied three major CVRF (high blood pressure, hypercholesterolemia and diabetes mellitus [DM]) and considered a CVRF as undiagnosed or newly detected when a patient had no previous diagnosis or treatment despite abnormal findings in the study visit.

Results: In a population of 368 patients (mean age: 48.4 years [SD: 14.1]; 63.9% males, 36.1% females), a total of 101 (27.4%) had at least one major CVRF that had not been previously diagnosed (29.8% of men and 23.3% of women, p = 0.181). Newly detected CVRF on the study visit were BP (16.0%), hypercholesterolemia (8.7%) and DM (5.4%). High BP (systolic BP ≥140 and/or diastolic BP ≥90 mmHg) was detected in 59 of 273 patients with no previous diagnosis or treatment for hypertension (21.6%). This proportion was higher in men than in women (25.4% vs. 15.0%, p = 0.044). Hypercholesterolemia (total cholesterol >250 mg/dl, or >200 mg/dl in patients with DM or cardiovascular disease) was detected in 32 of 244 patients (13.1%; men: 12.0%, women: 15.1%, p = 0.493) with no previous diagnosis or treatment for hypercholesterolemia. Finally, 20 of 327 patients (6.1%) with no previous diagnosis of DM fulfilled our diagnostic criteria (baseline glucose ≥126 mg/dl or HbA1c level ≥6.5%), with a similar proportion in men and women (6.3% vs. 5.8%, p = 0.855). The proportion of patients with newly detected CVRF were similar regardless of their age range (Table).

	<45 years	45-54 years	55-64 years	≥65 years
Overall patient population (n = 368)	27.0%	29.5%	29.9%	22.2%
Men (n = 235)	29.9%	35.9%	26.5%	20.0%
Women (n = 133)	22.6%	12.5%	38.9%	24.1%

Proportion of patients with undiagnosed CVRF stratified by age and gender (overall sample, n = 368). p-trend = NS.

Conclusion: Underdiagnosis of CVRF was frequent in psoriasis patients. We were able to detect new CVRF in a considerable amount of psoriasis patients (27.4%) that had not previously been either diagnosed or treated. These findings highlight the crucial role dermatologists can play in the detection of CVFR in a population that is relatively young but presents a higher prevalence of cardiovascular risk factors than the general population.

Disclosure of Interest: None declared.

P 083

Lipid disturbanses in psoriasis patients with exessive body mass and of obesity

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Introduction: Psoriasis is a common chronic and recurrent inflammatory skin disorder that has been associated with increased cytokine production, abnormal plasma lipid metabolism and with high frequency of cardiovascular events.

Objectives: The aim of our research was to study the balans of lipid serum indicators in patients with psoriasis and exessive body mass and obesity.

Materials and Methods: There were examined 60 patients (36 men and 24 women) with vulgar psoriasis and excessive body mass, age range 21–69 years old. There was studied the lipid spectrum of patients' blood serum and defined the level of cholesterol, cholesterol of lipoproteids of low density (CL-LPLD), cholesterol of lipoproteids of high density (CL-LPHD), triglycerides (TG), Apo lipoprotein A 1, Apo lipoprotein B, C-reactive ultra-sensitive protein (turbidimetric method, Biosystems, Spain). Body mass index (BMI) was calculated upon the A. Ketele formula. The severity of the psoriatic process were evaluated with PASI index. Data analysis concerning normal distribution was realized according to Tuki, d'Agostin-Pirson criterion, correlation analysis was performed by Pearson.

Results: In the studied group of psoriasis patients PASI was average 17.9 (5, 0) points. During the examination of body mass of the patients the following peculiarities were found out: 11% of patients had normal body mass tending to obesity, excessive body mass and the I degree of obesity were registered in 29% and 27% of cases, whereas the patients with II and III degrees of obesity shared 19% and 14% of cases accordingly. Within the group of psoriasis patients the following somatic pathology was found out: hypertension in 35.7% of cases, ischemic heart disease in 7.1% of cases. BMI and presence of cardiovascular pathology did not have any significant correlation. The cholesterol level was 6.32 (1.07) mmol/l, CL-LPLD indicators –

2.94 (0.74) mmol/l, CL-LPHD and TG indicators were on average 0.92 (0.81-1.1 mmol/l and 1.99 (1.7–2.49) accordingly, that were significantly higher than the age norm. PASI, BMI, lipid profile did not have any significant correlation also. C-reactive ultra-sensitive protein on average was equal to 1.92 (1.18) mg/l, its level issignificantly higher than the normal value in 83.6% psoriatic patients.

Conclusion: Patients with vulgar psoriasis and exessive body mass have lipid disturbances, the degree ofdyslipidemia independent of BMI and the severity of psoriasis.

The conducted examination and analysis imply the use of hypolipidemic therapy in patients with excessive body mass and obesity and established-dyslipidemia.

Disclosure of Interest: None declared.

P 084

Psoriasis comorbidities: Moroccan experience

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Introduction: Psoriasis is one of the most common diseases in the world. The relationship between psoriasis and associated diseases has drawn particular interest in recent years.These comorbidities has changed the prognosis and treatment of the psoriasis.

Objectives: The aim of our work is to clarify the various pathologies associated with psoriasis in our exprience and compare our results with the litterature.

Materials and Methods: Prospective study over a period of 17 months, conducted in Department of Dermatology, University Hospital Ibn Sina Rabat-Morocco for all psoriasis patients seen in consultation or hospital were studied epidemiological and clinical factors of psoriasis and various pathologies associated.

Results: Total of two hundred patients with psoriasis were included. The average age was 42 years. A male predominance was noted. Plaque psoriasis was the most common (50%). The mode of evolution was progressive in 85.4%. Familial psoriasis was noted in 22% of patients. Psoriasis was not aossociated to other diseases in 51% of cases. The psychiatric pathology were most frequently associated with 21.7%, in particular the depression (5%) and the addicitions (20%).The metabolic sd was found in 8.4%, the abdominal obesity (21%), the diabetes (8%), the dyslipidemia (13%) and the hypertension (12%). For autoimmune diseases, there was 5.6%, including 3% cases of vitiligo.

Conclusion: Long been considered a benign disease, psoriasis is a systemic disease with frequent comorbidities that must be detected for a good overall care of its pathologies.

Disclosure of Interest: None declared.

P 085

Peripheral vascular disease and coronary disease in patient with psoriasis

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Introduction: Psoriasis is an autoimmune skin disease with prevalence 2–3% worldwide. In the last years, many publications associated psoriasis with cardiovascular risk factors and coronary disease. In Argentina, there are few registries and no data available.

Objectives: To determine the prevalence of coronary risk factors, peripheral vascular disease and coronary disease in a population with psoriasis compared with a control group from our electronic medical records and to establish the association of these factors with the presence of psoriasis.

Materials and Methods: We conducted a cross-sectional study analyzing data from electronic medical record of Hospital Italiano de Buenos Aires. We analyzed all patients over 18 years old with diagnosis of psoriasis and compared with a control group. We determine the prevalence of hypertension, diabetes, obesity, smoking, peripheral vascular disease (PVD) and coronary disease in patients with and without psoriasis. We established the association between PVD and coronary disease and psoriasis. And an inclusion criterion for this population was that they must have the health insurance of the institution.

Results: The total population was 3833 and it included 1286 patients with psoriasis. Women represent the 53% and the mean age was 59 $\pm$ 18 years. Only 6.5% of patients with psoriasis had history of psoriatic Arthritis. Patients with psoriasis had a lower age (58 vs. 60 years, $p < 0.05$) and higher BMI (27.7 kg/ m^2 vs. 26.7 kg/m^2, $p < 0.05$) compared with the control group. The prevalence of hypertension (50% vs. 38%, $p < 0.001$), smoking (25% vs. 17%, $p < 0.001$) and diabetes (12% vs. 8%, $p < 0.001$) was also higher in subjects with psoriasis compared to control group. The prevalence of coronary disease was higher in patients with psoriasis (4.98% vs. 3.06%, $p < 0.01$). The prevalence of PVD was also higher in patients with psoriasis (21% vs 3.61%, $p = 0.019$). From Multivariate analysis (including age, presence or absence of diabetes, hypertension and smoking) there was a significant association between coronary disease and psoriasis (OR 1.48, 95% 1.04–2.11, $p = 0.03$), but not with PVD (OR 1.33, 95% 0.95–1.88 $p = 0.09$).

Conclusion: Atherosclerotic disease is a major cause of morbidity and mortality, and psoriasis may predict an increased risk of cardiovascular disease. Modification of traditional risk factors through lifestyle changes, including dietary modification, smoking cessation, and increased daily exercise, and appropriate preventive drug prescription may be of particular importance in reducing risk in individuals with psoriasis.

Disclosure of Interest: None declared.

P 086

Cardiovascular risk factors in patients with severe psoriasis: are they being well screened and treated? A real-world setting study

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Introduction: Psoriasis has been associated with increased prevalence of classical coronary risk factors, including hypertension, hypercholesterolemia and diabetes mellitus and increased risk of cardiovascular disease, such as myocardial infarction and stroke.

Identification and correct treatment of theses comorbidities to potentially decrease cardiovascular events is of high importance.

Recent studies have suggested that these risk factors are commonly undiagnosed and undertreated in patients with psoriasis.

Objectives: To describe the presence, diagnosis and treatment of CV risk factors in patients with severe plaque type psoriasis followed in a tertiary dermatologic center in Portugal.

Materials and Methods: 103 patients with severe plaque-type psoriasis (PASI >12 or systemic therapy) without psoriatic arthritis and without previous cardiovascular disease were evaluated for the presence, previous diagnosis and current treatment of CV risk factors: hypertension, hypercholesterolemia, hypertriglyceridemia and diabetes mellitus. Cardio-

vascular risk was evaluated with ten-year coronary heart disease Framingham risk score and HeartSCORE risk score.
Results: A total of 103 patients with severe plaque type psoriasis were studied: 63.1% were man; the mean age was 47.4 (24–71); 33% were with systemic therapy (94% with biologic therapy). 45.6% were overweight and 36.9% were obese. 26.2% were current smokers. 47.6%, 12.6%, 35% and 18.4% had hypertension, diabetes, hypercholesterolemia and hypertriglyceridemia respectively. A considerable proportion of these patients were not diagnosed: 38.8%, 15.4%, 36.9% and 84.2% for hypertension, diabetes, hypercholesterolemia and hypertriglyceridemia
Moreover, of those being treated 76.7%, 36.4%, 65.2% and 33.3% with hypertension, diabetes, hypercholesterolemia and hypertriglyceridemia were undertreated (treatment goal was not ideal).
Concerning the risk for cardiovascular events, evaluated with the Framingham risk score and the HeartSCORE Risk, 22% and 57% of patients were at intermediate risk and 7% and 11.6% were at high risk, respectively.
Conclusion: In this real-world setting study, a high prevalence of undiagnosed and undertreatment of CV risk factors was observed, highlighting the importance of screening an correctly treat these comorbidities in such patients.
Disclosure of Interest: None declared.

P 087

A case of sub acute thyroiditis in a patient on adalimumab for treatment of refractory palmo-plantar psoriasis

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Introduction: Recent reports indicate different side effects of the new medication for psoriasis:Adalimumab.
Objectives: We report a clinical case of subacute thyroiditis induced by Adalimumab in a psoriatic patient.
Materials and Methods:
Case report: A 54-year-old Caucasian female addressed to our dermatology clinic in 2008 with a 3-year history of moderate to severe psoriasis. The patient had been experiencing non-disabling joint pain in both knees and wrists for several years. Her medical history was remarkable for pulmonary sarcoidosis (at the age of 32), arterial hypertension and angina pectoris.
The patient was started on Adalimumab 40 mg twice monthly with good clinical evolution, but she was diagnosed, a few months after starting the therapy, with subacute thyroiditis with severe evolution, with transitory hyperthyroidism (TSH 0.1 uiu/ml).The treatment with Adalimumab was discontinued, the symptoms cleared in 3 weeks with nonsteroidal anti-inflammatory drugs and a fully recovered thyroid status was obtained in one month.
The patient continued the psoriatic medication (Adalimumab) with no influence on thyroid status.
Results: We describe a case of subacute thyroiditis in a psoriatic patient treated with Adalimumab, with a very good clinical evolution with nonsteroidal anti-inflammatory medication.
Conclusion: Liaison between dermatologists and, in this case, endocrinologists and rheumatologists, will help to determine the prevalence of these reactions and to provide insights into the very complex mechanisms of both diseases.
Disclosure of Interest: None declared.

P 088

Prevalence of metabolic syndrome among adult Filipino psoriasis patients

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Introduction: Evidence linking psoriasis to metabolic syndrome and its components has rapidly increased all over the world. To date however, published studies on Asian subjects are still few and with conflicting results.
Objectives: To determine the overall and age- and sex-specific prevalence of metabolic syndrome and its components (central obesity, hypertension, hypertriglyceridemia, low HDL and impaired fasting glucose or diabetes mellitus) among adult Filipino patients with psoriasis vulgaris compared to non-psoriasis controls.
Materials and Methods: A cross-sectional prevalence study was conducted using consecutive convenience sampling. One hundred seventy-nine adult patients with chronic plaque psoriasis and 180 non-psoriatic controls were included as subjects. Waist circumference, blood pressure and serum levels of fasting blood sugar, cholesterol, HDL, and LDL were obtained in each subject. Metabolic Syndrome was defined using the International Diabetes Federation 2006 Worldwide Definition. Data was analyzed using licensed STAT 12 software. To determine the association between psoriasis and metabolic syndrome controlling for age and sex, multivariate logistic regression analysis of data was used.
Results: Metabolic syndrome prevalence was higher in psoriasis patients (37.3%) compared to controls (31.11%) but not statistically significant using univariate analysis (p 0.207). However, multivariate logistic regression analysis adjusting for patients' age and sex revealed an association between psoriasis and metabolic syndrome, with an odds ratio of 1.59 (1.01–2.53) (p 0.048). HDL levels were significantly lower in the psoriasis group compared to controls (OR 1.66, CI 1.09–2.51, p = 0.018). No significant difference was found between psoriasis and control groups in terms of central obesity (OR 1.33, CI 0.88–2.02) hypertension (OR 0.79, CI 0.52–1.20), elevated fasting glucose (OR 0.77, CI 0.50–1.19), and elevated triglyceride levels (OR 1.04, CI 0.62–1.75). Both smoking (p 0.025) and alcohol intake (p 0.003) were more prevalent in psoriasis patients compared to controls.
Conclusion: Our study demonstrated a significant association between psoriasis and the metabolic syndrome after controlling for age and sex. Also, there is a significantly higher prevalence of smoking and alcohol intake, and decreased HDLc in psoriasis patients compared to non-psoriatic controls. Hence, screening for these comorbidities and lifestyle modification counseling may be an important part of the initial and continuing management of psoriasis patients.
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P 089

Psoriasis in a patient with palmoplantar eczema: a challenging diagnosis

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Introduction: Psoriasis and eczema are two frequent inflammatory dermatosis which diagnosis of is often easy. However, the clinical distinction between them is not always obvious.

Objectives: To dicuss the possible association between psoriasis and eczema.
Materials and Methods: Case report.
Results: A 38-year-old man with a history of allergic rhinitis and long-standing dyshidrotic eczema presents with pruritic erythematous lesions of the trunk and members. On physical examination, there were large vesicular palmoplantar and abdominal patches. The patient was treated with topical Betamethasone cream but no improvement was noted. Oral prednisone (0.5 mg/kg daily) was started but the patients developed psoriasiform lesions on arms and soles. A biopsy was performed and the histopathological study showed typical features of psoriasis on the left arm and only spongiotic process on the trunk. The overall clinical course was good with clinical improvement 4 weeks after starting Methotrexate (10 mg/week).
Conclusion: Psoriasis and eczema are classically considered as two different dermatosis with opposed pathological mechanisms (psoriasis is characterized as a disease in which the TH1 lymphocyte response plays a role in development and maintenance of skin lesions, while eczema is initiated by TH2 lymphocyte responses).But some patientsexhibit an overlap of clinical and/or histologic features that resemble both psoriasis and eczema. The hesitation is more frequent in cases with exclusive palmoplantar patches and when the histological features do not allow a definitive distinction between them. In fact, spongiotic process may occasionally be seen in psoriasis, especially in inflamed or traumatized lesions. Such condition seems to be frequent and arecent prospective study showed that 20% of included psoriatic patients developed simultaneously or consecutively eczema. We present this case to support the idea that psoriasis and eczema are not mutually exclusive diseases.
Disclosure of Interest: None declared.

P 090

Problems of the psoriasis, associated with viruses of herpes simplex

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Introduction: A herpetic infection (HI) may be not only a nosologic disease but also a secondary infection which may affect the severity of the course of other dermatoses.
Objectives: Timely diagnostics and proper therapy of the psoriasis progression help related specialists prevent occurrence of such diseases. Therefore, the goal of our research is to provide comprehensive examination of the persons suffering from psoriasis, especially those with the severe or atypical course of the disease, in order to detect herpetic infection and improve further treatment of these patients.
Materials and Methods: During 2010–2013 years 17 patients with the proved diagnosis of psoriasis have been observed in our clinical laboratory (general, biochemical and immunological blood test, ELISA).
Results: In the course of clinical-anamnestic examination of the patients with psoriasis, we obtained the following results:

-form of psoriasis: localised - for 5% of patients, widespread eruptions - for 81% with the affected area 20–70%, psoriasis arthropatica–in 14% of cases with the skin lesion - to 75%
-psoriasis stages: progressive - for 47.1% of people, stationary for 52.9%;
-age of dermatosis: from 3 months to over 40 years;
-family psoriasis: for 16% of people;
-provoking factors: stress situations - in 38.4% of cases, alcohol abuse - in 6.5%, microbial and viral factor - for 20.9% of people, traumata - 12.7%. The causes of the disease were not specified by 21, 5% of people;
-course of the disease: for 78% of people it was characterized by susceptibility to the frequent exacerbation and for 22% - stable remission was not observed for a long time.

Uniformity of the changes in the immunological blood test and revealing of HI for 78% of the patients with psoriasis have lead us to prescribing antiviral preparations in the therapy. Antiviral episodic treatment consisted in prescribing acyclovir to all patients at a dose of 200 mg orally, 5 times a day. The duration of the treatment was defined individually for each patient (5–10 days on average).
In the dynamics of the treatment for the patients with psoriasis certain immune indices change as follows: the humoral immunity indices decrease; the amount of the T helper cells increases (teophylline resistant T cells acting); the percent of the T suppressor cells decreases (teophylline sensitive T cells acting); the number of undifferentiated O-cells in the blood sample increases; IgM synthesis increases; the circulatory immune complexes increase considerably.
Conclusion: Revealed alterations in the indices of both humoral and cellular arms of the immune system for the patients with psoriases is an indirect evidence of the negative influence of provoking factors and concomitant pathology on the intensity of immune answer in their organisms resulting in the creation of immunodeficiency.
Disclosure of Interest: None declared.

P 091

Should we considerer different treatment goals for cardiovascular risk factors in patients with psoriasis?

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Introduction: Psoriasis is a chronic inflammatory skin disease associated with increased cardiovascular morbidity and mortality. Particularly if severe, it may be a risk factor for major adverse cardiac events (MACE), such as myocardial infarction and stroke.
The Framingham Risk Score (FRS) estimates the long-term risk of MACE, but it may underestimate this risk in psoriasis patient, not taking into account the excess risk attributable to severe psoriasis.
Recently, Methta et al estimated the attributable risk of severe psoriasis at 6.2%. Moreover, they showed that it could have practical implications in the treatment of cardiovascular risk factors in such patients.
Objectives: To analyze the impact of the attributable risk of severe psoriasis on cardiovascular risk based on FRS and its implication on the correct treatment of cardiovascular risk factors.
Materials and Methods: FRS was calculated before and after adding the attributable risk for severe psoriasis in 100 severe plaque type psoriasis (PASI>12 or under systemic therapy); its impact on long-term risk of MACE was analyzed as well as its implication in the correct treatment of cardiovascular risk factors.
Results: A total of 100 patients with severe plaque type psoriasis were studied: 64% were man; the median age was 48.1 (30–71). Mean FRS was 8%: 71% had a low risk for MACE, 22% an intermediate risk and 7% a high risk.
After considering the estimated attributable risk, the mean FRS increased to 14.6%. 56% of the patients were reclassified to a higher risk (68.85% of the man and 33.3% of the women). 63.4% of patients at low risk were reclassified as intermediate risk and 50% of those at intermediate risk were reclassified as high risk.
Moreover, it had important implication in the correct treatment of patients with hypertension and hypercholesterolemia: 57.1% of the patients considered well treated for hypertension, after the reclassification were not follow-

ing guidelines treatment goals recommendations, while 37.5% of patients being treated for hypercholesterolemia were considered undertreated with the reclassification.
Conclusion: Assessing cardiovascular disease risk using scores as FRS in severe psoriatic patients may underestimate the real risk for cardiovascular disease. These patients should be more aggressively treated and controlled for their cardiovascular risk factors due to higher disease risk. Thus, established treatment goals may be inappropriate and should be re-evaluated for such patients.
Disclosure of Interest: None declared.

P 092

Psoriasis tied to higher risk of diabetes in Moroccan patients

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Introduction: The relationship psoriasis-diabetes might result from common immunological mechanisms: a chronic inflammation associated with high levels of TH cytokine. The incidence of diabetes in psoriasis is estimated at 4.6%.
Objectives: To detect the incidence of diabetes in Moroccan psoriatic patients.
Materials and Methods: Prospective study conducted over a period of 13 months (January 2012 to February 2013). Psoriasis diagnosis was based on an array of arguments: Epidemiological, anamnestic, clinical, histological, therapeutic and evolutive. Analyzed parameters were: age, sex, the clinical appearance of the lesions, fasting glycaemia.
Results: Number of patients: 20. The average age of patients: 32 years old. Clinical forms of psoriasis: Guttate psoriasis (11.8%), plaque psoriasis (17.6%), pustular psoriasis (17.6%), Psoriatic erythroderma (29.5%), generalized psoriasis (23.5%):2 patients had subsequently diabetes and one patient developed an intolerance to carbohydrates. Increased biological watching of all the patients has been advocated to detect the occurrence of subsequent diabetes. In literature, studies show that patients with psoriasis have a 1.5-fold risk of developing type 2 diabetes, chiefly in severe cases.
Conclusion: Since steroids temporarily improve psoriasis, their continuous use may result in the development of induced diabetes. Thus, monitoring all patients with psoriasis should be regular in order to detect the onset of diabetes and manage it at an early stage.
Disclosure of Interest: None declared.

P 093

Psoriasis and co-morbidities - new aspects

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Introduction: Many reports have demonstrated an association between psoriasis and the metabolic syndrome. However, not much is known about the association between psoriasis and autoimmune diseases, melanoma and non melanoma skin cancer.
Objectives: To study the association between psoriasis, autoimmune diseases, and skin cancer among psoriatic patients who were hospitalized in a department of dermatology.
Materials and Methods: A case control study was performed utilizing the computerized medical databases from Rabin Medical Center. Inpatients diagnosed with psoriasis between the years 1993–2006 were compared with inpatients diagnosed with any form of dermatitis but without psoriasis during the same years, for the prevalence of various systemic and skin autoimmune diseases (including hypothyroidism, collagen diseases, pernicious anemia, pemphigus, bullous pemphigoid, alopecia areata and vitiligo), melanoma and non melanoma skin cancer. Both groups were matched for age and gender. All diagnoses were based on ICD-9 codes registered on release forms from hospitalization. Logistic regression models were used for multivariate analyses.
Results: The study included 1079 inpatients with psoriasis and 1079 inpatients with dermatitis (control patients).
Association with autoimmune diseases: Only pemphigus was found to be associated with psoriasis (13 psoriasis patients compared to 4 dermatitis patients OR 3.3 CI95% 1.07-10.1). No other associations were found between psoriasis and any other autoimmune disease – not individually nor as a group
Association with melanoma and non melanoma skin cancer: Among the psoriasis patients 73 were diagnosed in the past with non melanoma skin cancer, and 13 with melanoma. Among the control group 276 were diagnosed in the past with non melanoma skin cancer, and 43 with melanoma. A multivariate logistic regression model demonstrated that psoriasis was significantly and negatively associated with non melanoma skin cancer (OR 0.23 CI95% 0.18–0.3) and melanoma (OR 0.29 CI95% 0.16–0.55).
Conclusion: Our current observation suggests a possible lower prevalence of melanoma and non melanoma skin cancer in psoriasis patients compared to dermatitis patients. Psoriasis may confer protection against skin cancer. Our study failed to demonstrate an association between psoriasis and various skin and systemic autoimmune diseases compared to dermatitis patients. An association was found only between psoriasis and pemphigus. This association is questionable due to the small number of pemphigus patients and may be attributed to the treatment modality. Further investigation is required.
Disclosure of Interest: None declared.

P 094

Prevalence of metabolic syndrome in patients with psoriasis in a dermatology department in Algiers

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Introduction: Psoriasis is achronic inflammatory skin disease, evolving by relapsing and remission. Several studies have reported the association of psoriasis with metabolic syndrome (MS) and its components (central obesity, glucose intolerance, dyslipidemia, and elevated blood pressure).
Objectives: Assess the prevalence ofMS in patients with psoriasis in the department of dermatology of the University Hospital of Bab El Oued in Algiers.
Materials and Methods: Prospective studyincludes all psoriatic patients seen between 2009 and 2012 over the age of 18 years, who received no systemic therapy (cyclosporine, methotrexate, retinoid or PUVA) for more than 1 month.
Severalclinical and biological data were collected: age, sex, age of onset of psoriasis, severity and type of psoriasis, weight, height, BMI, BP, smoking, alcoholism, presence of comorbidities and SM.
Definitions used were SM NCEP ATPIII.
Seizure, control entry and analysis were performed by the EPI info .06.
Results: The study included 334 psoriatic patients; 89.8% were seen as outpatients. A male predominance (sex ratio: 1.25) was noted. Age range: 18–89; mean age: 46.86 $\pm$ 15.48.
Plaque psoriasis was the most common form with 75.74% of cases.
The prevalence of MS according to the NCEP definitions was 35%. There was 55 (47%) men and 62 (53%) women, with a mean age of 54.54 $\pm$ 13.62 with extremes (23–83). abdominal obesity was observed in 54 (29%) men and 114 (77%) women.
Conclusion: The MS iscommon in our psoriatic population, with a predominance of abdominal obesity in women. Screening components of SM and management especially of obesity in daily practice is required.
Disclosure of Interest: None declared.

P 095

Psoriasis and comorbidities, a study of 77 Tunisian patients

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Introduction: The relationship between psoriasis and associated diseases has drawn particular interest in recent years.
Objectives: To examine the association between psoriasis severity and comorbid conditions including metabolic syndrome, cardiovascular, psychiatric disorders and associated neoplasms.
Materials and Methods: A retrospective study including 77 Tunisian psoriatic patients followed in the department of Dermatology Habib Thameur Hospital was conducted.
Results: There were 77 patients (46 males and 31 females) with a sex-ratio H/F: 1, 48. The mean PASI in our patients was 29 and 70% of our patients had chronic plaque psoriasis. The mean age was 47 years old. Comorbidities were dominated by the metabolic syndrome with hypertension (18%), diabetes (16%) and dyslipidemia (6.4%). They were followed by psychiatric disorders (7.7%) especially anxiety and depression. Associated neoplasms accounted for only 3.8% and were represented by a case of Hodgkin's disease and two cases of lung cancer.
Conclusion: Comorbidity is defined as the coexistence of several diseases in the same patient. In our study, patients with severe psoriasis had an increased rate of metabolic syndrome. The metabolic syndrome plays an important role and participates along with inflammation, in the increase in cardiovascular risk and in particular in the increase in the risk for myocardial infarct. Hence, not only does psoriasis reduce patients' quality of life, but it also reduces their life expectancy and increases the cost of the disease. Early detection and appropriate treatment of these comorbid diseases are important in terms of preventing progression to more advanced stages.
Disclosure of Interest: None declared.

P 096

Co-existing of psoriasis and systemic lupus erythematosus

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Introduction: A large number of auto-immune diseases associated with either lupus erythematosus (LE) or psoriasis have been reported, furthermore, LE patient may develop skin lesions of subacute lupus erythematosus which are clinically similar to psoriasis. However, the coexistence of these two diseases is uncommon and may be explained by immunological factors or trauma.
Objectives: According to literature data association of psoriasis with lupus erythematosus is well known, but rare. The question arises whether this association is the matter of poor coexistence or the matter of genetic mutations. However, these associations can further highlight the autoimmune nature of psoriasis.
Materials and Methods: We studied 7 patients suffering from both lupus erythematosus and psoriasis. Each patient subjected to a full detailed history and clinical examinations. Immunological and histological examination from their skin lesions have been done.
Results: In our patient we take into consideration a possible diagnosis of drug-induced psoriasis, although the patients did not show regression of psoriatic plaques once the antimalarial drug was withdrawal, moreover all needed either topical or systemic treatment for their psoriasis.
Conclusion: The management of these patients is difficult, as psoriasis benefits from phototherapy, which flare LE, and systemic corticosteroids, indicated in LE, may produce severe psoriasis rebounds. On the other hand, antimalarial drugs used in the treatment of SLE are responsible for psoriatic flares. Dermatologist and rheumatologist should be aware of such association with regard of the diagnosis and choosing the appropriated treatment
Disclosure of Interest: None declared.

EPIDEMIOLOGY

P 097

Some data from the epidemiological survey of psoriasis in Georgia

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Introduction: Psoriasis is a common, immune mediated disease of the skin and joints. It can have a significant negative impact on the psychosocial wellbeing of affected patient. Psoriasis is found worldwide, but the prevalence varies among different ethnic groups as well as according to age and geographic region. Studies on the prevalence and incidence of psoriasis have contributed to a better understanding of the burden of the disease.
Objectives: The main objective of this survey was to study the incidence of first-time diagnosed psoriasis in medical facilities providing ambulatory services in two largest cities of Georgia.
Materials and Methods: The survey was based on analysis of statistical data given in 2012 annual reports from 14 medical facilities providing ambulatory services in second largest city of Georgia, Kutaisi (with population of 192 500) and similar data given in 2011 annual reports from 12 medical facilities providing the same services in Tbilisi (with population of 1,152 500) including first-time diagnosed diseases (A00–T98), first-time diagnosed skin and subcutaneous tissue diseases (L00–L99) and first-time diagnosed psoriasis (L-40.0).
Results: The number of patients with first-time diagnosed diseases (A00–T98) in Kutaisi in 2012 was equal to 80 793. From this total number 2149 cases were of skin and subcutaneous tissue diseases (L00–L99), out of which 71 were the cases of psoriasis (L-40.0). Distribution of cases of the first-time diagnosed psoriasis in age groups was as following: years <15 5 cases from 5 to 18 0 cases; >18 66 cases.
The number of patients with first-time diagnosed diseases (code A00–T98) in Tbilisi was equal to 97 692. From this number 4272 cases were of skin and subcutaneous tissue diseases (L00–L99), out of which 359 were the cases of psoriasis (L-40.0). Distribution of the cases of first-time diagnosed psoriasis in age groups: years <15 58 cases, from 5 to 18 19 cases; >18 282 cases.
Conclusion: The incidence of first-time diagnosed psoriasis in two cities of Georgia constituted respectfully 6.27% of all first-time diagnosed diseases and 0.24% of skin and subcutaneous diseases; 80.9% of patients with first-time diagnosed psoriasis were above the age of 18.
To fill existing gaps and collect more accurate and reliable data with regard to psoriasis throughout Georgia the epidemiological survey is required to be continued and extended.
Disclosure of Interest: None declared.

P 098

Low treatment satisfactions among moderate to severe psoriasis patients treated with conventional therapies

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Introduction: Moderate to severe psoriasis is an autoimmune inflammatory disease which has a high impact on patients' health-related quality of life. Yet, the EuroQol (EQ-5D) score, the Dermatology Life Quality Index (DLQI) questionnaire, and the Psoriasis Area and Severity Index (PASI) are used in different scopes of studies and the knowledge about their relationships in psoriasis is limited.

Objectives: (a) To describe the quality of life and treatment satisfactions of moderate to severe psoriasis patients in three European countries: France, Spain, and the United Kingdom, (b) to evaluate the relationship among EQ-5D score, DLQI questionnaire, and PASI, and (c) to develop an algorithm to map DLQI questionnaire to EQ-5D.
Materials and Methods: This was a retrospective review of medical chart and patient surveys of psoriasis patients in France, Spain, and the United Kingdom. Two hundred and forty physicians in the 2007 Adelphi's Psoriasis Disease Specific Program completed Patient Record Forms.Patients completed Patient Self-completion Forms. Descriptive analysis was conducted to describe the quality of life and satisfactions among moderate to severe psoriasis patients on conventional therapies. Correlations among EQ-5D, DLQI and PASI were assessed.
Results: A total of 1054 moderate/severe patients with 634 patients from France, 183 from Spain, and 237 from the United Kingdom who received conventional treatment were included in the analysis. Mean age was 47.6 ± 15.2, with 59% of male. 530 (50.3%) patients reported treatment satisfaction related question. Among those, 30.6% (162) of the patients reported completely dissatisfied or moderately dissatisfied with their conventional therapies. Among 137 patients with severe disease, 40% (55 out of 137) reported dissatisfied at some degree with their conventional therapies.
Conclusion: The results show that among moderate to severe psoriasis patients treated with conventional therapies, at least 30–40% of dissatisfied with their treatments.
Disclosure of Interest: Q. Ding Employee of: Merck & co., Inc, T. Fan Employee of: Merck & co., Inc.

P 099

Sociodemographic and clinical features of psoriasis patients from the Southern Turkey

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Introduction: Psoriasis is a chronic recurrent inflammatory skin disorder characterized by hyperproliferation of keratinocytes and by infiltration of activated Th1 and Th17 cells in the (epi)dermis.
Objectives: The aim of the present study was to analyze the sociodemographicand clinical features of psoriasis patients in a tertiary referral psoriasis clinic.
Materials and Methods: A total of 239 consecutive psoriasis patients (112 male and 127 female) who had been visited Psoriasis Unit of Department of Dermatology and Venereology, Akdeniz University Hospital between June 2012 and Jannuary 2013 were retrospectively reviewed. The demographic and clinical data were recorded in a computer-based psoriasis patient record system developed for psoriasis patients by one of us (EA).
Results: Family history of psoriasis was 33.19%.Prevelance of smoking and alcohol intake was 49.79% and 4.6%, respectively. 46 (19.24%) psoriasis patients were required in-patient treatment during the course of the disease. Body mass index (28.07 ± 9.28) was higher than normal limits. Age of onset was found to be 31.97 ± 21.37 years. Plaque psoriasis was the most commonly observed clinical subtype (n: 177; 74.05%). Additionally, 32 (13.38%) guttate psoriasis, 19 (7.94%) palmoplantar psoriasis, 4 (1.67%) generalised pustuler psoriasis, 4 (1.67%) invers psoriasis, 2 (0.83%) palmoplantar pustular psoriasis, and 1 (0.4%) erythrodermic psoriasis was seen. Body surface area and PASI was found to be 7.23 ± 13.3 and 4.12 ± 4.23, respectively. Nails were affected in 123 (51.46%) patients. In 31 (12.97%) patients, face involvement was observed.
Conclusion: Our results show that sociodemographicand clinical features of psoriasis in southern Turkey, in general are compatible with previous data.
Disclosure of Interest: None declared.

P 100

Psoriasis: which mode of inheritance for a common disease?

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Introduction: Few epidemiological studies discussed the mode of inheritance in psoriasis.
It was reported that in a small minority of cases, the disease seems to follow Mendelian patterns (autosomal dominant or recessive), implying a defect in a single gene. However, in general, psoriasis vulgaris appears to arise through multiple genetic risk factors interacting with each other and with environmental factors.
Objectives: To determine the mode of inheritance of psoriasis in some Tunisian families.
Materials and Methods: We examined all members of seven consanguineous and non consanguineous families with multiple psoriasis vulgaris cases. We describe the mode of inheritance in these Tunisian families.
Results: Autosomal recessive inheritance seems to be the mode of transmission in 4 families and autosomal dominant Mendelian inheritance in three families.
Recently, it has been demonstrated that psoriasis could be a monogenic disease. The mode of inheritance in multiplex families has to be clearly defined in genetic studies.
In low rate consanguinity areas (European countries), only autosomal dominant psoriasis could give multiplex families, while in high rate consanguinity areas, either autosomal dominant or recessive could give multiplex families, which could allow genetic studies of nuclear and homogeneous families.
Isolated psoriasis cases are not uncommon even in low rate consanguinity areas and are probably related to autosomal recessive mode of inheritance. This is due to the many candidates genes described by the genome wide association studies.
Conclusion: Psoriasis is a monogenic disease. Inheritance is autosomal dominant or recessive. In countries with high rates of consanguinity, multiplex families are found in autosomal dominant or recessive psoriasis, which helps discovering new involved genes.
Disclosure of Interest: None declared.

P 101

An examination of biologic treatment groups of psoriasis patients in a cohort of the Newfoundland and Labrador population

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Introduction: Research regarding biologics treatment for psoriasis is quite limited given that biologics treatments were introduced to the market within the past 10 years.
Objectives: The distribution of psoriasis patients by biologic treatment type, demographic factors and prognostic factors was examined. Health service utilization and comorbidities among psoriasis patients by biologic treatment type was also described. The odds of developing particular comorbid conditions was examined based on whether or not a patient received biologic treatment.
Materials and Methods: This cross-sectional study will assist in understanding the different biologics treatments, associated factors and comorbidities among a sample of psoriatics in the Newfoundland and Labrador population. The following data sources will be linked: The **NewLab**

Psoriasis Database includes demographic, clinical and genetic data on a sample of 3226 psoriatics (1989–2005); The **Clinical Database Management System** contains hospital separation data (1995/96–2007/08), the **MCP Fee-for-Service Physician Claims Database** captures demographic and clinical information on services provided to NL residents by physicians on a fee-for-service basis (1995 and 2008); The **NLCHI Mortality System** contains data extracted from provincial death notifications (1991–2008); **Statistics Canada Annual Mortality Data Files** contain data on deaths in Canada; (1993–2005).

Results: Preliminary findings suggest the majority of patients receiving biologics treatment had moderate/severe psoriasis. Signs and ill-defined conditions, skin/sub-cutaneous diseases, respiratory disease, nervous system/sense organs disease and musculoskeletal /connective tissue diseases were some of the most common comorbidities found across all biologic classes. Among biologics patients, 63.7% had at least one unique hospital separation, and 96.3% had at least one physician visit. The Charlson Comorbidity Index (CCI) which predicts 1 year mortality for patients with many comorbid conditions was significantly higher in female patients (2.37) as compared to male patients (1.93) $p < 0.05$ on biologics. Of the biologics patients whose Psoriasis Area and Severity Index (PASI) scores were available, 86.1% saw improvements after biologics treatment.

Limitation of this study is a cross-sectional, descriptive study looking only at a snapshot of a population at a particular time.

In this cohort of 284 patients female patients had significantly greater number of comorbidities (9.53 vs. 8.20) $p < 0.05$.

Conclusion: Findings suggest the majority of patients receiving biologics had multiple associated comorbidities, and that females had significantly greater number of comorbidities (9.53 vs. 8.20, $p < 0.05$). Also the CCI which predicts 1 year mortality for patients with many comorbid conditions was significantly higher in females (2.37) as compared to male patients (1.93) $p < 0.05$ on biologics.

Disclosure of Interest: W. Gulliver Speaker bureau of: Abbott/AbbVie, Amgen/Pfizer, Merck, Janssen, Grant/Research Support from: Abbott/Abb/Vie, Amgen/Pfizer, Consultant for: Abbott/AbbVie, Amgen/Pfizer, Merck, Janssen, N. Gladney: None Declared, K. Collins: None Declared, A. Morrissey: None Declared, D. MacDonald: None Declared, R. Aleghehbandan: None Declared, J. Dowden: none declared.

P 102

Psoriasis of early and late onset in Tunisian population

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Introduction: The existence of two distinct forms of psoriasis related to age at onset has been postulated. However, precise data regarding the clinical characteristics of psoriasis depending on the age at onset are still lacking.

Objectives: The purpose of this study was to compare clinical features of psoriasis of early and late onset.

Materials and Methods: This prospective study conducted in The Military Hospital of Tunis, involved patients with psoriasis, in 5 year period, between January 2008 and December 2012. Both statistical and descriptive analyses were performed.

Results: A total of 109 patients with psoriasis (88 men and 21 women) were included in the study. Seventy 1 patients were included in group 1 (psoriasis of early onset) and 38 patients in group 2 (psoriasis of late onset). The mean age of the patients was 36.9 years (8–79). Fifteen patients (13.9%) reported that other members of the family had psoriasis.

Chronic plaque-form psoriasis was the most frequent clinical type of psoriasis 57.8%. Guttate psoriasis was observed more frequently in patients included in group 1 than in those included in group 2 (19% vs. 5% $p < 0.05$), whereas palmoplantar pustulosis was observed more frequently in patients from group 2 (23% vs. 7%, $p = 0.001$). No significant relationship was detected between the other different clinical forms of psoriasis and the age at onset of the disease. Percentage of skin surface area affected was higher in group 2 patients (30% vs. 22% of the skin). However, relapses were more frequent in group 1 (28% vs. 11%).

Conclusion: In our population, the disease appeared to be more frequent in male subjects. Indeed, patients are predominantly male at the military hospital. Patients with early and late onset psoriasis often show different clinical and evolutionary features in Caucasian population. (1) Patients with early-onset psoriasis frequently tend to have more guttate psoriasis and a more frequent relapses, and patients with late-onset psoriasis often have a continuous clinical evolution and a higher frequency of palmoplantar pustulosis. These differences were found in our population. In a recent study, authors (2) suggest that the susceptibility effect of PSORS1 gene declines with increasing age of onset. Disease onset under or above 30 years of age may contribute to differentiate type I vs. type II psoriasis, while the family history would have a lesser contribution to such stratification.

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Disclosure of Interest: None declared.

P 103

Prevalence of onychomycosis in patients with nail psoriasis

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Introduction: Psoriasis is associated with nail changes in significant proportion of cases, and the frequency is much higher in the presence of psoriatic arthropathy. Many psoriatic patients have nail changes which morphologically resemble onychomycosis, and in such patients further differential diagnostic procedures are essential to exclude the presence of coexisting fungal infection.

Objectives: To evaluate the frequency of onychomycosis in patients with psoriasis and nail changes at department of dermatology-venereology in the CHU Ibn Sina Rabat, Maroc.

Materials and Methods: A prospective study conducted at the dermatology department of the Ibn Sina hospital centre in Rabat, Morocco, covering a 17 months and including 143 patients presenting psoriasis. Only those patients with any psoriatic nail change were evaluated further for onychomycosis.

Results: Of all these patients, 54% were men and 46% were women. The mean age was 42 years. The disease duration varied between 2 months and 21 years. The nail samples were collected from 45% finger nails, 15% toe nails and 40% both fingers and toe nails with psoriasis. The most common clinical form of psoriasis was psoriasis vulgaris (93%). Other clinical forms of psoriasis in descending order included in: plantar psoriasis (10%), isolated nail psoriasis (13.3%), Rhumatology psoriasis (5%), guttate psoriasis (1.7%), erythrodermic psoriasis (3.3%) and inversus psoriasis (1.7%). Fungal agent was isolated in 24, 6% of all patients with psoriasis, 93% of the cases were dermatophytes trichophytum rubrum, and two case was candida albicans.

According to the localisation, of the total number 31 positive for fungal, 90% had onychomycosis of the feet, 5% and hands and onychomycosis of both hands and feet was present in 5%.
In all psoriatic patients with concomitant onychomycosis, a high index NAPSI by Rich et al. for fingernails and toenails was obtained 42.
Conclusion: Based on our findings and other reports, it is important to consider coexistent fungal infection in psoriatic nails and treat if clinically appropriate, considering the fact that both have negative synergistic effect on the nail architecture. However, it seems that the therapy must be prescribed with caution as some systemic antifungal agents such as terbinafine may exacerbate psoriasis.
Disclosure of Interest: None declared.

P 104

Characteristics of patients with psoriasis seen at the dermatology clinic of a tertiary hospital in Nigeria: a 4 year review 2008–2012

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Introduction: Psoriasis is a disease that is influenced by genetic and immune mediated components. The pathogenesis of this disease is poorly understood. The incidence of the disease also varies dramatically worldwide with the condition being less common in the tropics and in dark skinned persons. The prevalence in African Americans is 1.3% compared to 2.5% in whites. There are few studies that have documented the epidemiological characteristics of psoriasis in a tropical population.
Objectives:
The objectives of the study are: 1. To document the incidence of psoriasis among patients visiting a dermatology clinic in Nigeria.
2. To compare the epidemiological characteristics of patients seen with those obtained in other parts of the world highlighting similarities and differences observed.
Materials and Methods: The study was carried out in the Dermatology Clinic of National Hospital Abuja, a tertiary hospital in Abuja the Capital City of Nigeria.
The study was carried out as a retrospective study reviewing case records of all patients with psoriasis seen within the study period December 2008 to December 2012. The diagnosis had been made by clinical examination with histological backup.
The data obtained was analysed accordingly and documented.
Results: A total number of One Thousand Eight Hundred and Fifty (1850) new patients were seen in the dermatology clinic of National Hospital within the study period out of which 39 were diagnosed to have psoriasis giving an incidence of 2.1%.
There were 23 Males and 16 females with a Male: Female ratio of 1.44:1.
The age range of patients seen was 8–65 years with a mean age of 37.8 years.
Four (10.2%) of the patients were diagnosed with HIV infection and had more extensive disease.
One (2.5%) patient was diagnosed diabetic.
The most common type of psoriasis seen was the plaque type seen in 35 patients (89.7%), guttate psoriasis in 1 patient (2.6%) and hand psoriasis in 3 patients (7.7%).No documented case of nail psoriasis.
Conclusion: Psoriasis is not a rare clinical condition among Africans as suggested by some earlier studies. The incidence (2.1%) obtained in this hospital based study though slightly lower than obtained in studies done among Caucasians shows that psoriasis cannot be said to be rare among Africans.
This study serves as a template and a call for larger studies on psoriasis among Africans to further document the features of this condition in African population thereby adding to the body of scientific knowledge.
Disclosure of Interest: None declared.

P 105

The prevalence and epidemiological characteristics of psoriasis morbidity in Lviv region, Ukraine

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Introduction: Psoriasis - one of the most common skin diseases, according to some authors it suffers from 2 to 10% of the population (around 200 million people), and among patients undergoing inpatient treatment - 6.5–22%. Issues on causes of increase in dermatosis prevalence, increased number of cases of atypical psoriasis course, examination of patients with complicated and torpid forms have been recently discussed in literature despite successes of clinical dermatology in the area of psoriasis diagnosis and treatment.
Objectives: In this context, it seems interesting to study the prevalence and epidemiological characteristics of psoriasis morbidity in Lviv region, Ukraine.
Materials and Methods: Under our supervision were patients who were hospitalized in the skin department of the Lviv regional dermatovenereologic dispensary.
Results: Over the last 5 years (2008–2012) in the skin department of the Lviv regional dermatovenereologic dispensary were treated 13 867 patients, of whom 1804 persons - patients with psoriasis (61.2% - men, 38.8% - women) that is about 13% of all dermatological patients. Among the patients were 61% of patients with plaque psoriasis, 4.9% of patients with guttate psoriasis, 2.5% of patients with pustular psoriasis, 6.4% - with psoriatic erythroderma, 25.2% - with psoriatic arthropathy. Approximate period of inpatient treatment constituted 28 days for the patients with psoriasis. 91% of examined patients suffering from vulgar psoriasis were people under the age of 60% and 9% – over 60. Among patients with psoriatic arthropathy 84% were people under 60, that is, those capable of working, and 16% patients – over 60. Having analyzed case records of patients with psoriasis, we found out that 53% of patients suffered from winter form of the disease, 9.1% and 37.9% of patients had summer and undifferentiated forms, respectively.
Conclusion: So, it would be interesting to continue analysis and investigate prevalence of psoriasis in Ukraine. Obtained data may promote elaboration of effective treatment methods and psoriasis prevention.
Disclosure of Interest: None declared.

P 106

Place of psoriasis in dermatology. Experience in the department of dermatology in Tlemcen (West–Algeria) 1981–2012

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Introduction: Establish a balance leads us to reflect on Dermatology of the sick dermatologists, meeting as the three sides of a triangle and like them inseparable.
Objectives: Algeria ICTS with climatic gradients, and geophysical variations ethnic diversity within ICTS groups or populations affect the distribution of skin diseases. The frequency of consanguinity can represent some kind of a natural laboratory for evaluating the effects of environmental and genetic factoring on the development and evolution of the pathology.
Materials and Methods: 655 000 patients were admitted to our department for 31 years over a period ranging from 1981 (date of commencement of service) in June 2012.
Results:
The overall activity of the service is dominated by four main types of disease:

1. Disorders of epidermal differentiation (mainly dominated by psoriasis) with 66.1%.
2. Infectious dermatoses (especially infectious nonspecific dermatoses and fungal infections "onyxis and mycoses of the glabrous skin and wrinkles, ringworm") with 21.5%.
3. Eczema and dermatitis spongiform (especially eczema) with 10.4%.
4. Tumor dermatoses (especially benign tumors, mainly epidermal cysts) and malignant tumors (especially basal cell carcinomas and squamous (squamous cell) with 02%.
Represented by 41% of women, 33% men and 26% of children.
The overall activity of the service is dominated by four main types of disease:
1. Disorders of epidermal differentiation (mainly dominated by psoriasis) with 66.1%.
2. Infectious dermatoses (especially infectious nonspecific dermatoses and fungal infections "onyxis and mycoses of the glabrous skin and wrinkles, ringworm") with 21.5%.
3. Eczema and dermatitis spongiform (especially eczema) with 10.4%.
4. Tumor dermatoses (especially benign tumors, mainly epidermal cysts) and malignant tumors (especially basal cell carcinomas and squamous (squamous cell) with 02%.
The skin condition is as vast and varied.
Psoriasis seems the most common pathology.
Epidemiological studies are needed to plan health policy, provide information on suitable local and national specificities, and improve research programs.
The disease is common in North Africa with some variations though.
Conclusion: Finally, as stated POINCARE "we do science with facts, as a house is with stones. But an accumulation of facts is no more a science than a heap of stones is a house".
It is therefore an introduction to the scientific approach and synthesis of the scientific and medical information with the goal of improving dermatological practice and quality of care.
Disclosure of Interest: None declared.

P 107

Retrospective study on psoriasis over a period of 8 years (2004–2010) in Romania

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Introduction: In 2011 we conducted a very large retrospective study on psoriasis in our Department, over a period of 8 years (2004–2011), looking to different aspects related to psoriasis.
Objectives: 1. Gender distribution.
2. The distribution of mild, moderate and severe cases among patients enrolled in the study.
3. The correlation between gender of the patients and the severity index of psoriasis.
4. The correlation between gender of the patients with psoriasis and the location of the lesions at the moment of medical examination.
5. Case distribution in raport to alcohol consumption.
6. Smoking and psoriasis.
Materials and Methods: Data were collected on 1236 patients; all the informations were written down and sent to the Statistical Department.
Results: Of 1236 patients diagnosed with psoriasis 669 were men (54.13%) and 567(45.87%) women, with a predominance of male over female gender.
Of 1236 patients most of cases were mild (43.37%), moderate (40.45%) and only 200 (16.18%) were severe form of psoriasis.S.
Strong association($r = 0.378$, $p = 0.00023$, $\chi^2 = 16.706$, $p = 0.00024$, 95% CI) between gender of the patients and the severity index of psoriasis; higher incidence of men with severe psoriasis (19.8%) in compare with women (11.82%), while mild forms of psoriasis were diagnosed in women (47.62%).
The correlation between gender of the patients with psoriasis and the location of the lesions at the moment of medical examination revealed us no significant difference gender related ($\chi^2 = 3.164$, $p = 0.0752$, 95%CI).
Of 1236 patients with psoriasis alcohol consumption was declared by 410 persons, representing 33.17% of all. One can notice a high incidence of moderate and severe forms of psoriasis in patients with alcohol intake (44.63% respectively 21.22%) and we can admit a strong association between the severity of psoriasis and alcohol intake($r = -0.48$, $\chi^2 = 24.30$, $p<<0.01$, 95%CI).
Most of the patients enrolled in the study were nonsmokers (by declaration), but there is a significant correlation between the smoking and the severity of the disease ($r = 0.254$, $\chi^2 = 10.49$, $P = 0.00527$, 95%CI).
Conclusion:
- The majority of patients were men (54.13%).
- Most of cases were mild (43.37%).
- Higher incidence of men with severe psoriasis (19.8%).
- Strong association between the severity of psoriasis and alcohol intake.
- Significant correlation between the smoking and the severity of the disease.

Disclosure of Interest: None declared.

P 108

Long-term efficacy of Japanese psoriasis vulgaris treatments over a 35 year period, 1975–2010

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Introduction: There are a variety of treatments for psoriasis, including topical, oral, phototherapy, and biologics. The problem with psoriasis treatment until now has been that there has been no way to cure the condition, and treatment evaluation was short term. This study evaluated long-term outcomes, looking at the relationships between treatment outcomes and initial severity, type of treatment and background characteristics.
Objectives: The subjects were patients with psoriasis vulgaris given non-biological treatments seen at the outpatient clinic of the Department of Dermatology, Tokai University Hospital, Kanagawa, Japan from 1975 to 2010.
Materials and Methods: Severity was evaluated based on the body surface area (BSA) involved.
Results: Of the total 1862 patients who visited Tokai University Hospital, 232 cases that had been followed up for at least 5 years were evaluated.
Conclusion: Three categories, classified by initial severity, changes in severity by method of treatment and background characteristics, were investigated. Cases of long-term treatment with a combination of topical corticosteroid and vitamin D_3 analog or cyclosporine were found to be effective therapies. Patients with a history of diabetes mellitus or cardiovascular disease of psoriasis were likely to be treatment resistant.
Disclosure of Interest: None declared.

P 109

Psoriasis: epidemiological study on 36 cases in Nouakchott

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Introduction: Psoriasis is an erythemato-squamous skin disorder of unknown cause, chronic course that affects approximately 2% of population. Psoriasis is related to epidermal turn-over disorder as well as complex dermo-epidermal inflammatory phenomena.
Objectives: The purpose of this work is to evaluate the epidemiological, clinical and evolutionary psoriasis profiles in our context.
Materials and Methods: This is a descriptive cross-sectional study carried out on a period of 4 months (July–October 2012). This study included all patients consulting for psoriasis on a total population of 2135 consultants. We studied their epidemiological, clinical and evolutionary characteristics and their perception of psoriasis. The data are collected by a questionnaire and analyses were performed by the SPSS20 software.
Results: Our study recruited 36 patients with mean age of 47.17 years (aged 30 to 77). The prevalence of psoriasis in our study is 1.6%. The most represented age group is 51–60 years with 33.3%. The average age at the installation of the lesions is 35 years (extreme from 10 to 70 years).There is a predominantly male (3/1). Patients are divided into equal between negatives 5 and 6 share. There is a family hit in 11% of cases. Concerning co-morbidities, atopy is found in 8.3%, hypertension in 8.3%, 8.3% in peptic ulcer, liver failure in 2.8% and 33.3% tobacco. No rheumatic involvement has been reported. Lesions begin in 83.3% by erythemato-squamous plates which the extent is less than 10% of the body surface in 58.3%. Pruritus is present in 69.4% and it is limited to the plates in 66.7%. Evolution is in the form of outbreaks and complete remissions (44.4%) or incomplete remissions (44.4%). The most frequently found remission period is from Triggering or aggravating factors, stress is found in 44.4%, the change of season in 8.3% and the drug based General corticotherapy in 5.6%.from 1 to 3 months. The Sun and the sea are considered improvement factor in 11% of cases and would have no effect in 33.3%. Psoriasis would have no impact on the quality of life in 55.6% and is not associated with any day's downtime. The treatment most frequently prescribe is the local base of corticosteroids alone in 80.6% or associated with Methotrexate in 16.7%.
Conclusion: Our study shows that psoriasis is relatively common in Mauritania, however it should confirm this assertion by a national survey. This survey shows that in our psoriasis is a disease of the adult and that it is the most often of late-onset. Smoking is frequently associated. Psoriasis is well received by patients. Puvatherapy should be part of the armamentarium in our working conditions.
Disclosure of Interest: None declared.

P 110

Psoriasis in dermatology patients in Palestine

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Introduction: Psoriasis is common in Palestine but there is no documented studies about it in the country, so I decided to do this simple study among dermatologic patients in my clinic in Nablus.
Objectives: To evaluate the size of the problem in Palestine as the attendents were coming from all over the country in the past four decades.
Materials and Methods: This is a retrospective study including all patients diagnosed with psoriasis during the years 2011 and 2012. The data was stratified according to the gender, age, family history, residence and occupation of the patients, the severity of the disease and treatment used in each case, social implications on the patients and the effect of the disease on the quality of their lives.
Results: In 2011, psoriasis was diagnosed in 201 pts (M = 105 & F = 96), while in 2012, it was diagnosed in 155 pts (M = 77 & F = 78). The age at diagnosis was variable, ranging between 1 month and 72 years, but most of the patients were between 20–50 years of age at the time of diagnosis (53.9%). There were no gender predomenance, and family history was positive in 20% of the patients.
All clinical forms of psoriasis were seen; acute guttate psoriasis was seen in 11 patients (M = 4 & F = 7), while erythrodermic and generalized pustular psoriasis were infrequent.
Female patients had more psychological implications than males.
Conclusion: In conclusion, psoriasis is a common disease in Palestine representing 4–5% of dermatologic patients in the country, and it has a great negative effect on the patients' quality of life. So that, a national registry and a Psoriasis group are urgently needed to help the patients and improve the quality of their lives.
Disclosure of Interest: None declared.

P 111

Characterization of the patients from the severe psoriasis consultation at Hermanos Ameijeiras hospital

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Introduction: Psoriasis is a chronic disease with a prevalence fluctuating between 2% and 3% according the series. The¨ Hermanos Ameijeiras¨ Clinical Surgical Hospital has a specialized consultation serving to this types of patient from all provinces of our country.
Objectives: Characterize the clinical, epidemiologic and of therapeutic response behavior of patients from January, 2006 to December, 2010.
Materials and Methods: A cross-sectional, retrospective and descriptive study was conducted and also to analyze the epidemiologic, clinical and of therapeutic response variables. Author took into account the designed forms for the protocolized consultation, the medical outpatient records and the hospitalization, the database designed for the type of above mentioned consultation and the photographic registries of each patient. The variables were analyzed using the SPSS pack version 11.5 in Spanish language.
Results: Two hundred and two (202) patients were included, There was predominance of adult patients, females sex and of white race, most without family backgrounds of Psoriasis and coffee consumers. The non-pustular psoriasis was the more frequent one with a severe involved body surface, variable associated with the initial Psoriasis Area and Severity Index (PASI). Infections were the main triggering factor of the disease and its generalization, the main reason for hospitalization in a small group of patients. Topical steroid monotherapy and the systemic Methotrexate were the more used therapeutical modalities and in this latter, the adverse events are in correspondence with those described for the product, where the more frequent was the transaminases increase.
Conclusion: The clinical and epidemiological characterization of psoriatic patients in the Hermanos Ameijeiras Hospital, establish the support to run multidisciplinary health projects directed to the effective study and disease management.
Disclosure of Interest: None declared.

P 112

Psoriasis and metabolic disease in the region of Tlemcen: case-control study

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Introduction: Psoriasis is 3 to 5 percent. 100 of the population according to the literature.
Many studies suggest that psoriasis is frequently associated with metabolic syndrome.
It is a case-control study in a hospital-centric mono spanning a period of 4 years from October 2008 October 2012.
Objectives: This is a case-control study in a hospital on a series of 368 psoriatic patients and 736 controls consecutively admitted to the dermatology department of the hospital of Tlemcen region.
Materials and Methods: Epidemiological study (clinical and evolutionary): Age of onset, disease duration, mode changing, assess the clinical severity of the disease. Of the 1104 patients who participated in the study, we found 591 cases of male or a percentage of 53.5% and 513 female 46.5%. Sex ratio in the study population was M/F is 1.15.
Results: The average age of our sample was 48.81 $\pm$ 15.7 years, 95% CI (46.46 to 48.82). For psoriasis it was 51.14 years $\pm$ 14.31. For smoking prevalence was twice as high among psoriatic 32.9% (121/368) vs. 16.4% (121/736) in the control group, the difference was highly significant with an OR = 2.49, CI 95% (1.85 to 3.33) and $p < 0.000$.
In the study population, physical inactivity is a major risk factor as its prevalence was approximately 38.95% or 430/1104, with a significant difference between psoriasis and controls (22% against 14.8% psoriatic for the other group, OR 95% CI was 1.62 and $p = 0.003$).
ATPIII definition, considered all diabetic individuals whose fasting glucose is ≥ 1, 10 g/l.
The prevalence of diabetes was significantly increased in psoriasis than controls ($p < 0.000$). Prevalence in the total sample of the study was 23.8%, among them 101/368 or 27.5% with psoriasis and 161/736 witnesses representing a rate of 21.9%.
Dyslipidemia was diagnosed in 71 cases 19.3% compared to controls in which 16.4% was found no significant difference between the 02 groups (P NS with an OR of 0.97).
The rate of metabolic syndrome in all cases was 294/1104 = 26.6%.
We found a higher frequency in cases (126/368 = 34.8%) than in controls (168/736 = 22.8%) with an OR of 1.76 odds ratio 95% CI (1.33 to 2.31) and a highly significant $p < 0.000$.
Hypertension: In psoriatic rate was 14.9% or 55/368 witnesses whose top we found 7.6% (56/736) with an OR of 2.13, 95% CI (1.43 to 3.16), the difference is very significant with a $p < 0.000$.
Comparing the 02 groups, obesity was present with a higher prevalence increased 26.9% (99/368) of cases against 17.2% (129/736). Difference was highly statistically significant difference between the groups; $p < 0.000$.
Conclusion: This first comparative study and descriptive in Algeria.
Disclosure of Interest: None declared.

P 113

Epidemiology of psoriasis in Egypt ain shams university experience

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Introduction: Psoriasis is a polygenic disease that affects 2% of the world population.The spectrum of the disease varies from a single finger nail pit up to total body skin involvement with disabling arthritis.Psoriasis is associated with several co-morbidities,thus having a moderate to large impact on QOL in 75% of patients,that is comparable to cancer and heart disease.
In Egypt psoriasis presents a health problem as in other areas of the world and careful treatment and follow up of patients should be maintained.
Objectives: Studying the epidemiology of psoriasis in Egypt, through a weekly Psoriasis clinic.
Part of the international psoriasis network.
Classification and clinical charecterisation of psoriasis in Egyptian Patients.
Sharing experience, to come up with a protocol of treatment for Egyptian patients.
Managing difficult and complicated cases (HCV).
Materials and Methods: Hundred psoriasis patients are included in this study, they were recruited through the psoriasis clinic at Ain Shams university hospital.
Each patient was subjected to the following;: Detailed quesionnaire, including clinical type of psoriasis and present and past treatment.
Photography.
BSA and PASI score.
Laboratory tests including liver function tests, renal function tests, blood sugar, lipid profile, HCV and HBV.
Biweekly follow up with photography to record the response to treatment.
Results: 100 psoriasis patients.
70 adults and 30 children.
60 males and 40 females.
20 female children and 10 males.
Preliminary results showed.
High incidence in chidren.
No family history except in one child.
High incidence of scalp and nail affection in adults and chidren.
Association of HCV.
Drugs inducing psoriasis.
Difficult and problematic cases.
Conclusion: This is a preliminary study to present our Ain Shams experience in setting up a psoriasis clinic through the psoriasis international network.
Characterisation of Egyptian patients is our main objective.
Protocol of treatment will be suggested.
Sharing our experience with countries all over the world.
Disclosure of Interest: None declared.

P 114

Are psoriasis patients prone to h. Pylori infection?

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Introduction: Psoriasis (Ps) is a chronic, autoimmune, inflammatory skin disease. Recently, *H. pylori* infection was reported to be associated with moderate to severe Ps.
Objectives: The objectives of this study were to determine the prevalence of *H. pylori* seropositivity in patients with psoriasis comparedto normal controls.
Materials and Methods: Patients with plaque-type psoriasis, but no gastrointestinal symptoms and non-psoriasis controls, age >18 years were tested by ELISA for serum anti-*H. pylori* antibodies. Age, sex, BMI, ethnicity, socioeconomic status at childhood, duration and treatments for Ps, concomitant diseases and current medications were recorded. Patients were divided into two groups: those on topical treatment (mild psoriasis) and those on systemic treatment including phototherapy (moderate to severe psoriasis).
Results: 23/29 (79%) patients with moderate to severe Ps presented with a significantly higher prevalence of seropositivity to *H. pylori* ($p = 0.022$), when compared with 26/53 (49%) patients with mild psoriasis and 27/51 (53%) controls. In the multivariate analysis, *H. pylori* infection was found

to be associated with moderate to severe psoriasisversus mild psoriasis and controls (odds ratio 5.98; 95% CI 1.80 - 19.84; $p < 0.003$).
Conclusion: It appears that moderate to severe Ps is associated with *H. pylori* infection. We hypothesizethat some of these bacterial components-may exert an inflammatory reaction in moderate to severe Ps. Further investigation is needed.
Disclosure of Interest: None declared.

HEALTH ECONOMICS OF PSORIASIS

P 115
Cost evaluation of topical therapies for patients with psoriasis in France

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Introduction: The economic impact of psoriasis in France is still poorly documented.
Objectives: To assess average annual direct and indirect costs associated with psoriasis and to evaluate annual cost of factors related to psoriasis and of patient satisfaction with dermatologists support.
Materials and Methods: Multivariate two-part regression analysis was used to isolate the incremental cost of psoriasis by controlling for confounding factors.
Results: A total of 529 patients with varying demographics and different degrees of severity of psoriasis were included in the study. Total annual costs per patient in France was €$_{2012}$ 4536.55 when treated with topical. The mean direct and indirect costs of psoriasis were €$_{2012}$ 4351.29 and €$_{2012}$ 185.26 per patient per year, respectively. Inaccurate diagnosis, perceived psoriasis severity by patients, psoriasis severity diagnosed by doctors or body surface affected by psoriasis representing more two palms, increased significantly the annual cost of care of the psoriatic patient. An additional economic impact on the average annual cost is seen when patients are dissatisfied with a perceived poor relationship with their dermatologist. A low patient satisfaction with dermatologist support increases total annual cost per patient treated with topical.
Conclusion: Cost-of-illness study of psoriasis provides information about disease burden on society.
Disclosure of Interest: F. Maunoury Consultant for: Leo Pharma, B. Halioua Consultant for: Leo Pharma, A. Motrunich Consultant for: Leo Pharma, A. Maury Le Breton Employee of: Leo Pharma, A. De Fontaubert Employee of: Leo Pharma, F. Dogniaux Employee of: Leo Pharma, M.-E. Roussel Employee of: Leo Pharma, J.-F. Stalder Consultant for: Leo Pharma.

P 116
Socioeconomic characteristics among individuals with plaque psoriasis: data from patient registry PSOLAR

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Introduction: PSOLAR (**PSO**riasis **L**ongitudinal **A**ssessment **R**egistry) is a multicenter, prospective, longitudinal, 8 + year, observational study of long-term safety and clinical outcomes for patients receiving (or eligible to receive) treatment for psoriasis with biologics and/or conventional systemic agents in academic and community-based settings.
Objectives: To assess the socioeconomic characteristics reported among the individuals enrolled in PSOLAR.
Materials and Methods: To be eligible for PSOLAR, patients must be at least 18 years of age, have a diagnosis of psoriasis, and be candidates for/currently receiving conventional systemic or biologic therapy for psoriasis. Data collected include baseline and interval medical history, disease activity, therapies, health-related quality of life, and adverse events. The electronic database captures additional objective clinical assessments that are collected as part of routine clinical care. PSOLAR implementation and research is guided by a steering committee of academic and community dermatologists, with analytical and operational support from Janssen Services, Inc.
Results: As of August 23, 2011, a total of 9495 patients are enrolled in PSOLAR with a mean age of 48.8 years (range = 18–100). Among these patients, 54.5% (5174/9495) are males, 82.4% (7823/9494) are Caucasian, 65% (6207/9484) are in a married/committed relationship, and 63% (5956/9440) report their highest level of completed education as college/university or higher. 67% (5568/8370) report they are currently working and among these patients, 85% (4679/5492) report working full-time. 40% (3084/7775) of the individuals report a total annual household income of >$75,999. Among patients reporting their non-working status, 12% (302/2432) report not working due to psoriasis. Lastly, of the 2449 patients who answered the question on disability payments, 632 (26%) stated they receive a disability payment.
Conclusion: As a disease-based registry, PSOLAR offers the ability to collect socioeconomic information among individuals with psoriasis. It appears that the majority of patients enrolled in PSOLAR are in a relationship, are employed, and have a household income above the median income of the US. Among those who are not actively employed, reports of psoriasis as a reason for "not working" and receipt of disability support payments are both prevalent.
Disclosure of Interest: A. Kimball Grant/Research Support from: Investigator for Janssen supported clinical trials, K. Gordon Grant/Research Support from: Investigator for Janssen supported clinical trials, D. Pariser Grant/Research Support from: Investigator for Janssen supported clinical trials, B. Schenkel Employee of: Janssen Scientific Affairs.

PATIENT EDUCATION

P 117
Triggering drug use in patients with psoriasis

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Introduction: The patients clinically diagnosed with psoriasis were investigated for drug use that may trigger psoriasis: The patients clinically diagnosed with psoriasis were investigated for drug use that may trigger psoriasis.
Objectives: The aim of the study was to minimize the triggering drug use and help the medical treatment of psoriasis patients.
Materials and Methods: The patients attended to our clinic between 2010 and 2012 were asked to bring their drug lists of the last year, which they obtain from pharmacy record system. They were advised not to use the drugs that may trigger psoriasis.
Results: A total of 289 patients were included in the study. Two hundred and twenty-one patients were using non-steroidal anti-inflammatory drugs; 133 patients were using anti-reflux drugs; 35 patients were using antidiabetic drugs; 31 patients were using calcium-channel blockers and 26 patients

were using beta-blockers. The PASI score was higher in patients with multi-drug use.
Conclusion: Many other factor may trigger psoriasis, therefore the effect of stopping or minimizing the drug use on disease remission is not known. Because of the high triggering drug use rate, it is important to enlighten psoriasis patients about triggering drugs.
Disclosure of Interest: None declared.

P 118

Do not hurt your skin: koebner phenomenon after cupping, a traditional method

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Introduction: Cupping is a non-needle acupuncture technic which is originated from China, and popular not only in China, also in the Middle East, Latin America and Eastern Europe. It is an alternative way to stimulate acupuncture and non-acupuncture points. Here we present a Koebner phenomenon after a cupping procedure.
Objectives: A thirty-year-old man, with a 12-year-history of psoriasis admitted to our clinic with extensive papules and plaques.
Materials and Methods: His psoriatic lesions were located on his chest, back, abdomen and extremities, all over the body. He also had strange figures on his back. On close examination, lineer elevated streaks with scales, and abraded skin in circular late erythemas were revealed in three areas on his back as koebner phenomenon (Figure 1). He had no arthritis. He was not on a medical therapy for 6 months, however he had different therapies before, including topical medications, short courses of phototherapies, methotrexate, and acitretin. Beside his medical history, a wet-cupping procedure which was performed by an unqualified therapist on his back was verified by him. A combination therapy with narrow band UVB and acitretin was initiated.
Results: Cupping procedures have been used for the treatment of different dermatologic diseases including psoriasis, acne and vitiligo. Very limited data is known about the result of these procedures. Only a case of panniculitis has been published as a side effect. However, we believe that the number of the side effects may be much more as unpublished data.
Conclusion: As a method of the complementary and alternative medicine, cupping may result in new psoriatic lesions as a koebner phenomenon in patients with psoriasis.
Disclosure of Interest: None declared.

PSORIASIS – PÄTHOGENESIS

P 119

An Antigen-Specific Therapy for Psoriasis; Psoriasis Due to Dental Metal Allergies

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Introduction: Although it is widely accepted $CD4^+$ T cells are essential for initiating and maintaining the psoriatic process, the specific antigen that activates pathogenic $CD4^+$ T cells is remain elusive until now. Therefore the treatment of psoriasis has been based on the nonspecific immune-modulating therapies. Regarding atopic dermatitis (AD) another T-cell mediated common skin disease, previously we reported the dental metal removal, an antigen-specific therapy based on the antigen-specific lymphocyte stimulation tests (LST) to dental metal(s) is often highly effective in the treatment of intractable AD patients. In the present study we report two cases of psoriasis patients, whose remarkable symptomatic improvement was obtained without any immune-modulating agents by the same antigen-specific therapy.
Objectives: Two adult patients with severe psoriasis. Case 1: A 39-year-old male, He had suffered from psoriasis since 4 years ago prior to the first visit. His symptoms developed and generalized and island shaped skin redness and desquamation were seen over his entire body surface. PASI score is 20. He had been treated his teeth with 5 pieces of palladium alloys and nickel containing metal core. Case 2: a 47-year-old female. Her disease began at the age of 40. Sever generalized skin redness and desquamation were observed on her upper body and shoulders. PASI score was 20. In her mouth seven pieces of amalgam (Hg and Ag) fillings were observed.
Materials and Methods: LST by using peripheral venous lymphocytes were performed to determine the causative antigens of psoriasis. For above two patients we performed LST to dental metals and house dust mite allergen. As allergen for LST we used soluble metal salts (Pd, Au, Ni and Hg) and purified Der.P. (house dust mite) antigen. A stimulation index (SI) of more than 180% was regarded as a positive reaction. In Case 1, LST results were 380% to Ni, 181% to Pd, 150% to Au and 834% to house dust mite (HDM).In Case 2, LST results obtained were 233% to Hg, 146% to Pd and 183% to HDM. In Case 1 Ni and Pd and HDM were suspected of causative allergens. Hg and HDM were suspected in case 2.
Results: All of dental metals were removed from the mouth of both patients. Their symptoms remarkably improved and all of their psoriatic skin lesions diminished completely within 4 months of dental metals removal without any immunno-modulating drugs.
Conclusion: Our above results show at least in some patients with psoriasis, metal-specific T-cells play a decisive role in the pathogenesis of the disease and dental metal antigen(s) activating T-lymphocytes would often mediate psoriatic skin disorders. Our antigen-specific therapy is not only highly effective and inexpensive, but is also devoid of the major side-effects of conventional drug and new immune-modulating biological agents. Now, we can say that psoriasis is not an intractable skin disease but a curable one.
Disclosure of Interest: None declared.
Keywords: antigen-specific lymphocyte stimulation test, antigen-specific therapy, dental metal, T-lymphocyte, pathogenesis

P 120

Serum pro-inflamatory cytokine levels tnf-a, IL12, IL22 and IL23 in patients with psoriasis and metabolic syndrome

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Introduction: Psoriasis is a chronic autoinmune hyperproliferative skin disease with a population of 1–3%. This inmune-mediated disorder in wich the excessive reproduction of keratinocytes is due to pro-inflamtory cytokines such TNF-a, IL12, IL22 and IL23. These Th1 and Th17 profile is also involved in the metabolic syndrome pathogenesis, comorbidity often founded in psoriatic patients. This inmunologic relationship has not been fully elucitated.
Objectives: Analize the association of serum pro-inflamatory citokyne levels TNF-a, IL12, IL22, and IL23 in patients with psoriasis on and without metabolic syndrome.
Materials and Methods: We included 30 clinically and histopatologycally diagnosed psoriasis patients, 30 age and sex matched controls of psoriasis patients without metabolic syndrom, 15 age and sex matched healthy subjects, and 15 age and sex matched non-psoriasis patients with metabolic syndrome. The serum cytokine levels quatification were made by solid phase sandwich ELISA (human: TNF-a, IL12, IL22, IL23).

Results: Serum TNF-a level in psoriatic patients with metabolic syndrome was markedly elevated. The difference between groups was found to be highly significant ($p < 0.05$).
Interestingly, serum IL12 level in patiens with psorasis without metabolic syndrome was found to be higher than the other groups ($p < 0.05$).
Diferrence in serum IL22 and IL23 levels were not found statistically significant between groups, nevertheless their values were higher in patients with psoriasis and metabolic syndrome.
Conclusion: Serum pro-inflamatory cytokines levels were higher in patients with psoriasis, mainly in those with metabolic syndrome associated.
This fact is important in psoriasis therapeutic approach because a more specific managment of these patients with therapies with cytokine targets, for intance biologic drugs, may contribute to improve psoriasis and its comorbidities such as metabolic syndrome.
Disclosure of Interest: None declared.

P 121

Role of vegf receptors in normal and psoriatic keratinocytes: evidence from different UV irradiation

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Introduction: Vascular endothelial growth factor (VEGF) promotes angiogenesis and plays important roles both in physiological and pathological conditions. VEGF receptors (VEGFRs) are high-affinity receptors for VEGF and are originally considered specific to endothelial cells. We previously reported that VEGFRs were also constitutively expressed in normal human keratinocytes and overexpressed in psoriatic epidermis.
Objectives: In addition, UVB can activate VEGFRs in normal keratinocytes, and the activated VEGFR-2 signaling is involved in the pro-survival mechanism. Here, we show that VEGFRs were also upregulated and activated by UVA in normal human keratinocytes via PKC, and interestingly, both the activated VEGFR-1 and VEGFR-2 protected against UVA-induced cell death. As VEGFRs were over-expressed in psoriatic epidermis, we further investigated whether narrowband UVB (NB-UVB) phototherapy or topical halomethasone monohydrate 0.05% cream could affect their expression.
Materials and Methods: Isolation and culture of normal human keratinocytes were from Adolescent foreskin was obtained from urinary surgery and handled aseptically. Aliquots of cells were harvested at different time points or with different doses after irradiation for RNA isolation and protein extraction. UVA irradiation regime for cultured normal keratinocytes: Confluent and quiescent keratinocytes were washed twice with PBS, irradiated by UVA under a thin film of PBS, and replenished with their own medium after irradiation. Human participants study were enrolled for the study and skin biopsies were taken. Indirect immunofluorescence technology were used to to detect the expression of VEGF165, VEGFR-1, VEGFR-2, NRP-1 and P-VEGFR-2 (Tyr 1175) on skin specimens in all experiments. Reverse transcription and polymerase chain reaction and Western blot analysis were used for the study in mRNA and protein level. Apoptosis Assay and Survival assay were conducted.
Results: The results show that VEGFRs were also upregulated and activated by UVA in normal human keratinocytes via PKC pathway, and interestingly, both the activated VEGFR-1 and VEGFR-2 protected against UVA-induced cell death. Furthermore, Over-expressed VEGFRs in psoriatic epidermis were significantly attenuated by both NB-UVB therapy and topical steroids treatments.
Conclusion: Our findings further suggest that UV-induced activation of VEGFRs serves as a pro-survival signal for keratinocytes. In addition, VEGFRs may be involved in the pathological process of psoriasis, and UV phototherapy is effective for psoriasis by directly modulating the expression of VEGFRs.
Disclosure of Interest: None declared.

P 122

Inhibition of keratinocyte differentiation by the synergistic effect of pro-inflammatory cytokines mimics psoriasis

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Introduction: Keratinocytes are involved in body protection against physical, chemical or biological aggressors. Integrity of the epidermal barrier is based on a tight regulation of the communication between keratinocytes and immune cells, particularly provided by a balanced cytokine production. An imbalance network leads to appearance of skin inflammatory diseases such as psoriasis. We identified a part of this cytokine network in psoriatic lesions (J Immunol 2005, 174-3695; J Immunol 2007, 178–4615). Modeling of skin inflammation showed that combination of IL-1a, IL-17A, IL-22, OSM and TNFa synergistically increases expression of chemokines and antimicrobial peptides, leading to massive neutrophil skin infiltration, recapitulating some features of psoriasis (J. Immunol 2010, 184–5263).
Objectives: Our goal was to characterize *in vitro* and *in vivo* the activity of cytokines on keratinocyte differentiation and to compare our models with keratinocyte differentiation markers expression in psoriatic skin lesions.
Materials and Methods: Proinflammatory cytokines combinations are tested on keratinocyte differentiation markers expression at both the transcriptomic and proteomic levels on *in vitro* normal human keratinocyte culture and reconstituted human epidermis. To assess their effects *in vivo*, the pro-inflammatory cytokine combination was injected intradermally into mouse ears and, to evaluate the pathophysiological relevance of our models, we compared to the expression of several differentiation markers in psoriatic skin lesions.
Results: IL-22, OSM and TNFa decrease expressions of cytokeratin 10 (K10), loricrin (LOR), filaggrin (FLG) and cadherin 1 (CDH1), as at lower level IL-1a and IL-17. Combination of these 5 cytokines (M5) generated a synergistic effect on inhibition of expression for these differentiation markers. These results were confirmed on reconstructed epidermis. IL-22 and OSM significantly decreased expressions of K10, FLG and CDH1 and induced epidermal hyperplasia. Injection of the M5 in mice caused a thickening of the epidermis associated with decreased expression of K10, FLG and CDH1. Similarly we observed a significant decrease in the expression of these markers in skin lesions of psoriasis patients, showing an expression profile similar to those obtained *in vitro* and *in vivo*.
Conclusion: Our results showed that synergistic effect of pro-inflammatory cytokines was responsible for the production of antimicrobial peptides, chemokines and inhibition of keratinocyte differentiation. IL-1a, IL-17A and TNFa are important for the production of antimicrobial peptides and chemokines, whereas IL-22, OSM and TNFa are essential to the differentiation inhibition. Establishment of these models clarify the role of these cytokines in the establishment of the inflammatory response.
Disclosure of Interest: None declared.

P 123

Plasma vitamin a and e levels and association of these levels with disease activity in patients with psoriasis

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Introduction: Psoriasis is a chronic inflammatory disorder with unclear etiopathogenesis that is characterized with keratinocyte hyperproliferation.
Objectives: There are many factors that play role in its pathogenesis. Vitamin A and E levels are among these factors. We aimed to evaluate the levels of these vitamins in patients with psoriasis who do not have alcohol consumption and find out if there is an association between vitamin levels and disease severity.
Materials and Methods: Fifty-five patients with psoriasis who admitted to 2nd Dermatology Outpatient Clinic of Numune Education and Research Hospital and age and sex-matched 31 healthy individuals were included to study. Patients with systemic disease, who used a vitamin or a drug affecting vitamin metabolism, have alcohol consumption and patients who have retinoid treatment history were not included to study. Psoriasis area and severity index (PASI) was calculated in patients. Venous blood samples were obtained from patients and controls in order to measure vitamin A and E levels. Statistical analysis was made for comparison of patient and control groups and according to PASI values.
Results: Vitamin A and E levels were significantly lower in patients with psoriasis compared to controls. This difference was significant between patients (PASI < 10 or > 10) and controls, whereas not significant in comparison of patients with PASI < 10 and PASI > 10.
Conclusion: In conclusion, our results support the finding that vitamin A or E deficiency may have a role in pathogenesis of psoriasis. Therefore, these findings should be considered in management of psoriasis treatment. Furthermore the usage of two vitamins together may create a synergistic effect.
Disclosure of Interest: Ü. Gül Shareholder of: study planner, Implementers and author, F. Bakır Consultant for: vitamin levels in sera employee.

P 124

Interaction between innate and adaptive immune mechanisms in the autoinflammatory pathogenesis of generalized pustular psoriasis

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Introduction: Generalized pustular psoriasis (GPP) is a rare, life-threatening disease manifestation of psoriasis characterized by recurrent episodes of systemic inflammation and pustulosis. While psoriasis is an HLA-class-I associated autoimmune disease the recent identification of genetic defects in the IL-36 receptor antagonist (IL-36RN), a physiological antagonist of IL-36 signaling, suggested an autoinflammatory pathomechanism with excessive activation of the IL-1 pathway in GPP (Marrakchi *et al* 2011, Onoufriadis *et al* 2011).
Objectives: In this study, we investigated how innate and adaptive immunity may cooperatively contribute to GPP pathogenesis.
Materials and Methods: Genotyping, Real-time PCR for cytokine expression and TCR analysis were performed using standard methods.
Results: We identified two additional mutations of IL-36RN and particular HLA-molecules in GPP patients, which may correspond with both a genetic predisposition for autoinflammation and autoimmunity, respectively. Real-time PCR for cytokine expressions and immunohistochemical studies confirmed local and systemic inflammation in GPP patients. Meanwhile, increased susceptibility to proinflammatory signals promoted auto-antigen driving T-cell activation in T-cell stimulation assays using lymphocytes from patients. T-cell receptor (TCR)-beta chain fragment length spectratyping and single cell TCR analysis were performed, and strong clonal T-cell expansions were detected in the skin and circulation of GPP patients.
Conclusion: These results provide a comprehensive picture of the pathogenesis of GPP; whereby aberrant innate immune reactions may trigger adaptive autoimmune responses.
Disclosure of Interest: None declared.

P 125

Serum prolactin levels in dermatological diseases: a case control study

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Introduction: Recent evidences suggest that prolactin (PRL) as a neurohormone may play a role in the activity of psoriasis and some other immune-mediated diseases.
Objectives: Our aim was to evaluate the correlation between serum PRL levels and severity of psoriasis, vitiligo and alopecia areata.
Materials and Methods: We performed a case-control study on 100 subjects: 75 patients; suffering from psoriasis, vitiligo and alopecia areata; 25 patients in each group and 25 age- and sex-matched healthy controls.
Results: Serum prolactin levels were significantly high in all three dermatological diseases in comparison with the control group ($p = 0.000$). The Mean $\pm$ SD of the serum prolactin levels was 21.8 ± 11.5 ng/ml, 16.9 ± 6.8 ng/ml, and 16.6 ± 8.0 ng/ml in patients with alopecia areata, psoriasis and vitiligo respectively. Moreover, the serum prolactin levels in the patients with alopecia areata and psoriasis were significantly correlated with disease severity ($p < 0.05$), however no statistically significant correlation was noted between vitiligo severity and the serum prolactin levels ($p > 0.05$).
Conclusion: Prolactin may play a role in the pathogenesis of alopecia areata, psoriasis, and vitiligo; and may serve as a biological marker of disease activity in patients with psoriasis and alopecia areata.
Disclosure of Interest: None declared.

P 126

The possible role of pentraxin-3 and tnf alpha as inflammatory mediator in psoriasis

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Introduction: Psoriasis is considered as a mediated autoimmune disease caused by dysregulation of innate and adaptive immunity. Tumor necrosis factor–α (TNF-α) is an inflammatory cytokine expressed in psoriatic patient. Long pentraxin-3 (PTX-3) is induced by inflammatory mediators, such as TNF, at the sites of inflammation.
Objectives: The aim of this study was to analysis PTX-3 levels in plasma of patients with mild and severe psoriasis, and to correlate PTX-3 with the proinflammatory cytokine TNF-α.
Materials and Methods: This case-control study including 20 patients with psoriasis and 20 age and sex matched healthy subjects free from inflammatory dermatoses to serve as a control group. Blood Samples were taken from both patients and controls for ELISA detection of PTX-3 and TNF-α protein.
Results: Statistical analysis revealed that the mean value of both the PTX-3 (range: 6.20–17.30 ng/ml with a mean of 10.71 ± 3.62) and TNF-α (range: 6.90–30.60 pg/ml with a mean of 18.61 ± 8.52) in psoriatic patients was statistically significant higher ($p < 0.001$) than in the controls (2.46 to 6.17 ng/ml with a mean of 4.38 ± 1.26 and 1.72 to 14.50 pg/ml with a

mean of 6.17 ± 3.54 respectively). This study also revealed positive significant correlation between PTX-3 and TNF-α in the psoriatic patients ($p = 0.001$).

Conclusion: PTX-3 could be a marker for monitoring the progression of psoriasis. Studies are needed to evaluate the expression and production of PTX-3 in psoriatic patients with therapy and to better clarify the role of PTX-3 in psoriasis.

Disclosure of Interest: None declared.

P 127

Determination of the association of the polymorphism 3′utr 1188 a/c of IL12 p40 gene (IL12b) with psoriasis vulgar in patients from west of Mexico

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Introduction: Psoriasis is a common, immune-mediated inflammatory skin disorder. The characteristic skin lesion is persistent, erythematous and scaly, reflecting infiltration of inflammatory cells, increased proliferation and turnover of keratinocytes, induced by IL-23/Th17 axis. Patients shown high levels of IL-12 and IL-23, p40 subunit is a component of both cytokines, which is encoded on IL12B gene. The polymorphism 3′UTR 1188 A/C of *IL12 p40* gene (*IL12B*), has been associated with psoriasis vulgar in Caucasian and Asian population.

Objectives: To determine the association of the polymorphism 3′UTR 1188 A/C of *IL12 p40* gene (*IL12B*) with psoriasis vulgar in patients from west of Mexico.

Materials and Methods: We included 105 patients with psoriasis vulgar and 106 healthy subjects (HS). The genotypes of the polymorphism of *IL12B* gene were identified by PCR-RFLP′s with specific restriction enzyme (*Taq1*).

Results: The genotype frequencies were 42% A/A (wild homozygous), 51% A/C (heterozygous mutant) and 7% C/C (homozygous polymorphic) in patients, 37% A/A, 53% A/C and 10% C/C in HS. The A and C allele frequencies in patients were 68%, and 32% respectively, in HS were 63% and 37%, respectively. When comparing genotype and allele frequencies estimated in the study groups with c^2, no statistically significant differences were found ($p > 0.05$).

Conclusion: The polymorphism 3′UTR 1188 A/C of *IL12 p40* gene (*IL12B*), is not associated with psoriasis vulgar in our study population, therefore cannot be considered as a genetic marker of susceptibility to developing this disease.

Disclosure of Interest: None declared.

P 128

Unknown microorganism in psoriasis patients

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Introduction: Aim of research was to study the role of intestinal system in patients with psoriasis. It was reasonable to study patient's enteric flora. The study revealed a high degree of dysbiosis was in severe quantitative and qualitative alteration of enteric bacterial flora. Number of bacteria in 1 gram feces was decreased significantly compared with normal indexes.

Objectives: For this purpose we studied content of microelements (Na, K, Ca, Fe, Cu, Zn, Se, Cr, Mo, Mg, Mn, Al) in feces and in blood. Study was performed with fluorescence spectrophotometer, using visible spectrophotocolorimeter method with special device ShangHai LengGuant F96PC. The tests carried out showed normal levels of other microelements, but low level of zinc, not related to the clinical form of psoriasis and varied between 4.2–12.7 ± 2.2 mmol/l (normal range 75.5 mmol/l ± 10.2). At the same time we identified the Zn level in blood and urine. Results showed sharp reduction of Zn concentration regardless clinical form of psoriasis. In urin – 11.2–15.8 ± 5.3 mmol/l (norm.25.5 mmol/l ± 8.3) and in blood – 24.2–35.7 ± 12.2 mmol/l (norm. 150 mmol/l ± 55.5).

Materials and Methods: 58 patients (32 males, 26 females) with different clinical forms of psoriasis from 15 to 68 were observed.Among them 15 patients had a local form of psoriasis, 16–disseminated form, 13–erythrodermic psoriasis and 14–psoriatic arthritis. Cultivation of the feces and blood was performed on the zinc chloride enriched agar (1/10 concentration dilution), in the 5% carbon dioxide incubator during 7 days. After 3 days of incubation zinc concentration reduced by 2.1; after 5 days – by 3.8 and after 7 days – by 5.2 (compared to the initial concentration). Further the material was processed with cell culture lysis reagent (Promega), after which the zinc concentraition reached to the initial level.

Control group included 20 healthy volunteers who passed a similar in vitro experiment. Thear was minor change of zinc concentration.

Results: We can conclude that zinc was accumulated in live microorganism. This conclusion was also based on the fact that microbiological analysis of colonies grown on the Petri dish detected particular microorganisms (prokaryote cells) that are well stained by Indigo Carmine, Tripan Blau and are not stained by Gram-stained smear (in the microscope the microorganism looks like a hedgehog). In control group similar microorganisms did not grown by cultivation.

Conclusion: Based on the carried out studies we can consider the role of unknown microorganism (hedgehog) in the pathogenesis of psoriasis.

This study can be continud for further investigation.

Disclosure of Interest: None declared.

P 129

The role of tnf-alpha converting enzyme in psoriasis

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Introduction: TNF-alpha inhibitors have been applied to psoriasis with great therapeutic efficacies, which suggests the significant roles of TNF-alpha in psoriasis. TNF-alpha is processed from a membrane-bound form by TNF-alpha converting enzyme (TACE) so that soluble TNF-alpha exerts its biological activity. Other than TNF-alpha, epidermal growth factor receptor (EGFR) ligands, including heparin-binding EGF-like growth factor (HB-EGF), amphiregulin and transforming growth factor (TGF) -alpha are TACE substrates and also recognized as psoriasis-associated growth factors. Tissue inhibitor of metalloproteinase-3 (TIMP-3), which is an intrinsic negative regulator of TACE, is reported to be down-regulated in the psoriatic lesions. Taken together, these observations suggest the potential involvement of TACE in psoriasis, although it still remains undefined whether TACE exerts a pathogenic effect *in vivo*.

Objectives: To assess the involvement of TACE in the pathogenesis of psoriasis, we used K5.Stat3C transgenic mice as a mouse model of psoriasis. Furthermore, we examined the effects of TACE inhibition on the release of its substrates from murine keratinocytes *in vitro*.

Materials and Methods: Psoriasis-like skin lesions were induced by topical TPA application in the ears of K5.Stat3C mice. The TACE-related factors in the ear skins were analyzed by quantitative RT-PCR, immunohistochemistry and Western blot. The contribution of TNF-alpha and EGFR signaling to the development of these skin lesions were studied using inhibitors for the respective signals. Primary keratinocytes from newborn mice were pre-

pared for *in vitro* study. The concentrations of TACE substrates in the culture medium were measured by ELISA.
Results: The gene expressions of TNF-alpha, HB-EGF, amphiregulin and TGF-alpha were significantly increased in the TPA-induced skin lesions compared to those in untreated skins. Immunohistochemically, TACE and TNF-alpha were observed in the epidermal keratinocytes and inflammatory cells in the TPA-induced psoriasis-like lesions. Topical treatment with TPA suppressed the TIMP-3 expression and subsequently increased soluble form of TNF-alpha. These results implied that the development of psoriasis-like lesions were associated with TACE activity and increased soluble TACE substrates. In vivo treatment of K5.Stat3C mice with TNF-alpha inhibitor or EGFR inhibitor attenuated the skin lesions, supporting the hypothesis that the TACE substrates are involved in psoriasis. Furthermore, in vitro treatment of TPA-stimulated murine keratinocytes with a TACE inhibitor reduced the amount of soluble TNF-alpha and amphiregulin in the culture medium.
Conclusion: Results of the present study strongly suggest that TACE plays pathogenic roles in the development of psoriasis-like lesions in K5.Stat3C mice. Therefore, TACE may be a therapeutic target for the treatment of psoriasis.
Disclosure of Interest: None declared.

P 130

Molecular genetic analysis of HLA class I and II genes in Spanish patients with psoriasis

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Introduction: Human leucocyte antigen (HLA) association with psoriasis have been known for nearly 40 years. Earlier studies localized the disease determinant to the class I end of the mayor histocompatibility complex and assigned the name of PSORS1 to this locus. Association with HLA-Cw6 is particularly strong, but several studies have documented associations between different HLA haplotypes and many different world populations.
Objectives: This study was designed to analyse the possible association of psoriasis with HLA class I and II loci with regard to different clinical factors in Spanish population.
Materials and Methods: HLA-A, -B, -Cw, -DRB1, -DQB, -DPB genotypingwas performed for 175 eastern Spanish patients presenting with plaque or guttate psoriasis. The diagnosis of psoriasis was based on clinical evaluations. Subgroups of patients were established according to the following clinicopatological factors: early/late onset, severity, family history, nails psoriasis or psoriatic arthritis. Association of psoriasis with HLA alleles was analysed by comparing population phenotyping frequencies in patients and 500 unrelated eastern Spanish organ donors previously HLA typed who acted as controls. HLA genotyping was performed by PCR-SSP or SSO from genomic DNA isolated from lymphocytes.
Results: Differences in relative abundances of different subtypes of HLA between cases and controls were tested using Fisher exact test, resulting in significative differences in both calss I and II HLA. Multitest correction was performed to avoid type-1 error using subsamples simulations using False Discovery Rate. The more significant association with psoriasis was observed for HLA-B13, -38, -B57, -Cw06, -DQB1 02 and -03, and DRB1-03, -11, -13 and -15. Association between different class I and II HLA and different clinicopatological factors related to psoriasis was also observed.
Conclusion: Here we report a replication of previous studies performed in other European and non-European populations which relate HLA subtypes to clinical manifestations of psoriasis. This is the first report of HLA association of psoriasis in Spanish population using PCR-based technologies. This results will support further genomic and functional studies of psoriasis in Spanish population.
Disclosure of Interest: None declared.

P 131

Role of rage in pathogenesis of psoriasis

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Introduction: This paper summarizes the existing knowledge regarding the molecular mechanism of psoriasis, focusing on the role of receptor for advanced glycation end products (RAGE) in the pathogenesis of the disease.
Objectives: This paper summarizes the existing knowledge regarding the molecular mechanism of psoriasis, focusing on the role of receptor for advanced glycation end products (RAGE) in the pathogenesis of the disease.
Materials and Methods: Using bioinformatic approaches we analyzed three sets of data obtained by microarray. proteomics and next generation sequencing.
Results: Our data highlight RAGE as one of key molecules that is involved in the inflammatory response. By interacting with multiple ligands (alarmins) and activating several signaling mechanisms, RAGE regulates gene expression *via* several well-characterized transcription factors, such as NFκB and AP1.A constitutive expression of RAGE in both immune cells and their targets, a high stability of ligand-receptor complexes of RAGE with alarmins as well as a positive feedback loop, upregulating the expression of certain alarmins as well as RAGE itself, suggest RAGE as a possible principal factorthat initiates and promotes a development of psoriasis.Moreover, RAGE is involved in the regulation of genes, such as cytokines, adhesion molecules and metalloproteinases those role in pathogenesis of psoriasis is already recognized.
Conclusion: Considering RAGE as *a potential master regulator* of processes that are crucial for the pathogenesis of psoriasis, we believethat further studies are needed to elucidate the role of RAGE in psoriasis and develop novel medications that target RAGE and RAGE-dependent signaling mechanisms.
Disclosure of Interest: None declared.

P 132

Bcl-2 in MF and psoriasis before and after puva therapy

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Introduction: Different studies have proved that ultraviolet irradiated keratinocytes display DNA fragmentation characteristic of apoptosis although little is known regarding the mechanisms that regulate this process. It was proved that UVA irradiation is able down-regulate Bcl-2 expression.
Objectives: Assess the effect of PUVA on the expression of Bcl-2 in skin lesions of psoriasis and mycosis fungoides.
Materials and Methods: This study included 30 patients and 10 controls. The patients were selected from the outpatient dermatology clinic of Cairo University hospital (Kasr El Aini). The patients included 15 psoriatic patients and another 15 patients of mycosis fungoides. The patients were of both genders and of different age groups. Every patient received three sessions weekly of PUVA for 3 months. Two biopsies were taken from every patient before and after 24 sessions of PUVA therapy. In MF cases the biopsy was divided into two parts, one for Hx and E staining for histopathological assessment, and another part for immunohistochemical staining for BCL2 staining.
Results: Most of the psoriatic patients showed evident decline of the Bcl-2 level at the end of our study i.e. after 24 sessions of PUVA therapy. Patients of mycosis fungoides did not show an evident difference regarding the BCL-2 staining of the lymphocytic infiltrate before and after therapy. No bcl-2 positivity (<10%) in any of the ten control skin biopsy samples with non specific chronic inflammation.

Conclusion: BCL-2 could be considered a good prognostic marker for PUVA therapy in psoriasis however PUVA induced-apoptosis in MF cases is not proved to be related to BCL2 changes.
Disclosure of Interest: None declared.

PSORIASIS ARTHRITIS

P 133

Continued improvement of signs and symptoms in ustekinumab-treated patients with active psoriatic arthritis: week 52 results of a phase 3, multicenter, double-blind, placebo-controlled study

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Introduction:
Objectives: We report safety & efficacy results through week 52 of PSUMMIT I, a large, multicenter, double-blind, PBO-controlled, Phase 3 trial of ustekinumab (UST) in pts with active psoriatic arthritis (PsA).
Materials and Methods: Adult PsA pts (n = 615) with active disease ($\geq$5 SJC and $\geq$5 TJC; CRP $\geq$ 0.3 mg/dl [ULN 1.0 mg/dl]) despite DMARD and/or NSAID were randomized to UST45 mg, 90 mg, or PBO at weeks 0, 4, and q12 week. At weeks 16, pts with <5% improvement in TJC & SJC entered blinded early escape [EE] (PBO→UST45 mg; UST45 mg→90 mg; 90 mg→90 mg). Stable concomitant MTX use was permitted but not mandated. Pts treated with prior anti-TNF agents were excluded. PBO pts who did not EE began UST 45 mg at weeks 24, 28 and q12 week. Unlike week24, available data at week52 were used for EE pts rather than counting them as nonresponders. AEs are reported through week52.
Results: Improvement in clinical, joint, soft tissue, skin, and disability index increased notably from week 24 through week 52. The proportion of pts with ACR50 at week 24 vs. week 52 were 8.7/38.0%, 24.9/31.4%, 27.9/37.0% for the PBO→UST, UST45 mg, UST90 mg groups, respectively. ACR responses were still numerically larger among pts not taking MTX at baseline vs. pts taking MTX at baseline. Of pts affected with enthesitis (n = 425) or dactylitis (n = 286) at baseline, improvements continued beyond week 24, with median percent changes at week 52 of -87.5, -83.3, -74.2 (enthesitis), and -100.00, -100.00, -100.00 (dactylitis) for the PBO→UST, UST45 mg, and UST90 mg groups, respectively). Mean duration of follow-up through week 52 was 29.75, 50.41, and 50.21 weeks for the PBO→UST45 mg, UST45 mg, and UST90 mg groups, respectively The proportions of pts with $\geq$1 AE were 41.3%, 66.8%, and 64.7%, respectively; pts with >1 serious AE were 5.3%, 5.9%, and 3.4%; pts with >1 serious infection were 0.5%, 1.0%, and 1.0%. No malignancies, TB, opportunistic infections, or deaths occurred through week 52. There were three major cardiovascular adverse events reported after the PBO-controlled period in UST-treated pts.
Conclusion: In pts with active PsA, pts randomized to UST showed markedly reduced signs and symptoms of arthritis, improved physical function, enthesitis, and dactylitis, and alleviation of plaque psoriasis through week 52, at a rate similar to that reported for other biologic treatments through week 52. Safety was consistent with that observed during the PBO-controlled period with limited between-group differences.
Disclosure of Interest: L. Puig Grant/Research Support from: Investigator for Janssen-sponsored clinical trials, A. Kavanaugh Grant/Research Support from: Investigator for Janssen-sponsored clinical trials, I. McInnes Grant/Research Support from: Investigator for Janssen-sponsored clinical trials, A. Gottlieb Grant/Research Support from: Investigator for Janssen-sponsored clinical trials, P. Rahman Grant/Research Support from: Investigator for Janssen-sponsored clinical trials, C. Ritchlin: None Declared, S. Li: None Declared, Y. Wang: None Declared, M. Doyle: None Declared, A. Mendelsohn: None Declared.

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Apremilast, an oral phosphodiesterase 4 inhibitor, in patients with psoriatic arthritis: results of a phase 3, randomized, controlled trial (palace 1)

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Introduction: Apremilast (APR), an oral phosphodiesterase-4 inhibitor, modulates inflammatory mediators.
Objectives: PALACE 1 studied APR in patients with active PsA despite prior DMARDs and/or biologics.
Materials and Methods: Patients were randomized to placebo, APR 20 mg BID (APR20), or APR 30 mg BID (APR30) stratified by baseline DMARD use. At week 16, patients with <20% reduction in swollen/tender joint counts were denoted as early escape and re-randomized to APR20 or APR30 (placebo group) or remained on initial APR dose through week 24. Stable DMARD therapy was allowed throughout (methotrexate, sulfasalazine, leflunomide, or a combination). Efficacy analyses were conducted using per-protocol population. Missing data were handled using NRI for categorical endpoints and LOCF for continuous endpoints.
Results: 504 patients were randomized: 64.9% taking DMARDs and 23.6% with prior biologic exposure (9.3% biologic failures). At week 16, more patients receiving APR20 (31.3%; p = 0.0140) and APR30 (39.8%; p = 0.0001) achieved ACR20 vs. placebo (19.4%). At week 24, APR showed significant improvements vs. placebo in physical function and pain. The most common AEs (>5%) were diarrhea, nausea, headache, and URTI. Of patients with AEs, most (>93%) were mild/moderate; AE discontinuations were low across arms (5–7%). One death occurred (APR 20 mg BID) due to multi-organ failure not suspected to be treatment-related. No greater risk of cardiovascular events was observed in the APR arms; no cases of systemic opportunistic infections, lymphoma, vasculitis or reactivation/de novo TB were reported.

	PBO (n = 165)	APR 20 mg BID (n = 163)	APR 30 mg BID (n = 161)
ACR20 (wk 16)%	19.4	31.3*	39.8§
APR alone (n = 172)	10.5	31.5*	47.5§
APR + DMARDs (n = 317)	24.1	31.2	35.0
ACR20 (wk 16) Biologic-naïve (n = 363)	23.7	31.2	42.5‡
APR alone (n = 89)	11.5	24.1	55.9‡
APR + DMARDs (n = 274)	27.2	33.3	37.2
Select secondary endpoints (wk 24)			
HAQ-DI, LS mean Δ	−0.077	−0.212*	−0.260‡
SF-36 PF, LS mean Δ	1.46	3.50*	5.06§

*$p < 0.05$; ‡ $p \leq 0.005$; § $p \leq 0.0001$ vs. PBO.

Conclusion: APR significantly improved signs/symptoms of PsA and was generally well tolerated with no new safety/laboratory signals detected.
Disclosure of Interest: A. Adebajo: None Declared, A. Kavanaugh Consultant for: Abbott, Amgen, Astra-Zeneca, BMS, Celgne, Contocor-Janssen, Pfizer, Roche and UCB, P. Mease Speaker bureau of: Abbvie, Amgen, BiogenIdec, BMS, Genentech, Janssen, Glaxo SmithKline, Lilly, Pfizer, UCB, Consultant for: Abbvie, Amgen, BiogenIdec, BMS, Celgene, Genentech, Janssen, Glaxo SmithKline, Lilly, Merck, Novartis, Pfizer, UCB, J. Gomez-Reino Speaker bureau of: BMS, Roche, Schering-Plough and Wyeth, Grant/Research Support from: Roche and Schering-Plough, Consultant for: BMS, Pfizer, Roche, Schering-Plough and UCB SA, J. Wollenhaupt Consultant for: Abbott Laboratories, Bristol-Myers Squibb, MSD, Pfizer and UCB, C. Hu Employee of: Celgene Corporation, R. Stevens Employee of: Celgene Corporation.

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Variations in treatment patterns, disease status and outcomes among patients with psoriatic arthritis receiving their first biologic in European union

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Introduction: Coordination of care by dermatologists and rheumatologists may help improve Psoriatic Arthritis (PsA) patient (pt) outcomes through early recognition and facilitation of therapeutic interventions. We intend to identify current practices among rheumatologists in managing this cohort in European Union (EU).
Objectives: To compare the treatment patterns, disease status and outcomes of patients with Psoriatic Arthritis (PsA) receiving their first biologic in UK, Germany, France, Italy and Spain (5EU).
Materials and Methods: A multi-country multi-center medical chart-review study of PsA pts was conducted among physicians (rheumatologists: 97%) in hospitals and private practices to collect de-identified data on pts who were recently treated with a biologic as part of usual care. Physicians were screened for duration of practice (3–30 years) and pt volume (incl. >5 PsA biologic pts/month) and recruited from a geographically representative panel. Pt charts (>3) were randomly selected within each center/practice. Physicians abstracted pt diagnosis, treatment patterns/dynamics and patient symptomatology/disease status/outcomes.
Results: In 1Q2012, 370 physicians abstracted 1099 eligible PsA pt charts; 916 (83%) pts were on their first biologic (mean-age: 48.1 years, female: 46%). Geographic distribution of physicians & pts were similar (UK: 20%, Germany: 18%, France: 22%, Italy: 21%, Spain: 19%). Time-to-1st biologic from diagnosis [43 months; range: 31 months (Italy)-50 months (UK)] and time-on-current biologic [22 months; range: 19 months (Italy)-24 months (France)] differed within 5EU. Top-3 biologic treatments observed were adalimumab [45%; range: 35% (Italy)-53% (UK)], etanercept [35%; range: 29% (Germany)-44% (Italy)] and infliximab [15%; range: 9% (UK)-22% (France)]. The top-4 reasons for biologic treatment initiation across 5EU were 'mechanism of action', 'improve signs/symptoms', 'preservation of structural damage' and 'positive personal experience'. Current disease severity per physician-judgment (mild: moderate: severe) in 5EU were: UK-61%:25%:13%, Germany-57%: 37%: 6%, France-44%: 46%: 11%, Italy-56%: 41%: 2%, Spain-64%: 33%: 3%. Among pts with available data, current HAQ [1.1; range: 0.7 (Spain)–1.5 (Germany)], BASDAI [3.4; range: 2.7 (Spain)–3.9 (UK)], 100 mmVAS [28.2; range: 23.9 (Spain)-31.4 (UK)] and Swollen Joint Count [2.1; range: 1.2 (Spain)–(3.7 (UK)] differed within 5EU. Among pts with available data, response to current biologic per ASAS criteria were (%ASAS20:%ASAS40:ASAS5/6: %ASAS partial-remission): UK-8%: 8%: 0%: 4%, Germany-18%: 7%: 9%: 12%, France-11%: 6%: 6%: 10%, Italy-29%: 16%: 12%: 15%, Spain-13%: 14%: 9%: 9%.
Conclusion: In this PsA cohort, disease severity and outcomes differed within 5EU, with pts in UK with relatively higher burden and poorer treatment response. Robust assessments of available treatment options to improve pt care and outcomes warrants further scrutiny.
Disclosure of Interest: None declared.

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Factors associated with undiagnosed PsA in psoriasis: analyses from the prepare PsA study

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Introduction: In the PREPARE study, rheumatologists screened 947 psoriasis patients attending dermatology clinics for Psoriatic Arthritis (PsA). Of the 285 (30%) psoriasis patients diagnosed with PsA, 117 (41%) did not know they had PsA (newly diagnosed).
Objectives: To determine differences between newly diagnosed patients and previously diagnosed PsA patients.
Materials and Methods: Stepwise logistic regressions were used to evaluate 26 characteristics as possible identifiers of newly diagnosed PsA vs. previously diagnosed PsA. Endpoints included demographics (age, sex, weight, time since psoriasis diagnosis, etc.), psoriasis severity (Body Surface Area [BSA], nail involvement, etc.), arthritis severity (joint involvement, enthesitis, C-reactive protein, joint pain, etc.), and quality of life (EQ-5D, HAQ, etc.), as well as clinic location (North America vs. Europe). Three model selection techniques were used post-hoc to find endpoints that identified newly diagnosed PsA vs. previously diagnosed PsA: backward elimination where non-significant identifiers were removed one-by-one; forward selection where significant variables were added one-by-one; and a variant of forward selection in which previously selected identifiers could be removed if they became insignificant after introduction of another one. Means of continuous endpoints were calculated for each group. Additionally, medication classes were compared for the two groups.
Results: The three model selection techniques agreed that of the 26 possible identifiers of newly diagnosed PsA, time since psoriasis diagnosis, BSA and clinic region were significant $p \leq 0.034$). Previously diagnosed PsA patients had had psoriasis longer than newly diagnosed PsA patients (23.4 years vs. 19.4 years, $p = 0.018$), lower BSA (8.3% vs. 11.6%, $p = 0.034$), and were more likely to be seen in clinics in Western Europe than North America (odds ratio 2.79, $p < 0.001$). Previously diagnosed PsA patients were more likely to be on biologic therapy (44% vs. 32%, $p = 0.034$), and/or on Disease Modifying Anti-Rheumatic Drugs (DMARDs, such as methotrexate, 33% vs. 19%, $p = 0.007$).
Conclusion: In this study few characteristics were associated with undiagnosed psoriatic arthritis. Previously diagnosed PsA patients were more likely to be on systemic treatments that could slow permanent joint damage. These results stress the need of appropriately screening patients for psoriatic arthritis as this may have consequences for psoriasis treatment selection.
Disclosure of Interest: H. Bachelez Consultant for: Amgen, Abbott, Celgene, Eli-Lilly, Janssen, Novartis, Pfizer, C. Paul: None Declared, M. Sticherling Speaker bureau of: Abbott, Pfizer, MSD., Leo, Janssen, Grant/Research Support from: Actelion, Biogen, Pfizer, Consultant for: Abbott, Pfizer, MSD., L. Mallbris Employee of: Pfizer, D. Alvarez Employee of: Pfizer Inc, J. Fuiman Employee of: Pfizer Inc, W. Li Employee of: Pfizer Inc, R. Boggs Employee of: Pfizer Inc.

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Digital titanium – Herbst appliance and psoriatic arthritis: mandibular and condylar growth effects

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Introduction: Temporomandibular joint (TMJ) involvement is common but usually delayed in patients with Psoriatic Arthritis (PA) To detect the early signs and manifestations of PA in temporomandibular joint by Cone Beam Computed Tomography (CBCT).
The use of CBCT and 3D diagnostic protocol in young patients with PA enables reliable, accurated and precise quantitative data and images of the condylar structures and their dimensional relationships, evaluating the efficacy of therapy, too.
Objectives: This work shows the application of a Herbst appliance produced with CAD-CAM titanium alloy (D-Ti Herbst) in a case of PA and evaluate the growth effects on TMJ.
Materials and Methods: The use of CAD-CAM is growing exponentially in dentistry, since its introduction in the field of prosthetics in the 80s. It also finds application in the orthodontic field, it can be produced with this technology: palatal expanders, Michigan plates, guide masks for presurgical orthodontics. The PA patient, aged 14, is investigated by CBCT and sections obtained are studied in the 3 planes of space. The left TMJ has a marked erosion of a round shape in the central portion of the head of the condyle. And there is slight lateral deviation during opening movement with Class II malocclusion and deep bite. Herbst equipment has applied to bring the jaw forward. We detect the footprints of accuracy of the dental arches and develop models in plaster. The models are scanned with scanners and structured light so you get the digital models. Using CAD software is designed the structure of the apparatus, which is then produced with the use of a numerically controlled milling machine. The Herbst is made and cemented, tried in the mouth with a cement-based resin. After removal of the equipment, 1 year later, a new CBCT scan to verify the results obtained, was made.
Results: The Herbst is a fixed functional appliance developed. The effects skeletal arising from the application of this apparatus is mostly during the peak of growth: in particular at the level of the jaw one can obtain a growth beyond the 3 mm for the dislocation of the condyle in the glenoid fossa and stimulation of new bone apposition especially in the portion top and back of the condyle. The analysis shows that the new CT at the level of the condyle there was bone remodeling and neoformation that has bridged the gap between right and left condyle erosion caused this previously.
Conclusion: The CAD/CAM applied to the materials from the aerospace industry such as titanium grade 5 make the design and implementation of the D-Ti Herbst simpler than traditional Herbst. The application in patients with PA has so far shown promising results but requires a study with a larger number of patients.
Disclosure of Interest: None declared.

P 138

Psoriatic arthritis and temporomandibular joint: how to detect the first articular involvement

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Introduction: Many reports have described the damaging effects of Psoriatic Arthritis (PA) on the temporomandibular joints (TMJs), but no study has clearly reported the TMJ as the first articulation to be involved in PA.
Objectives: The aim is to underline the importance of the paediatric dentist and orthodontist in the contribution to the early diagnosis of PA, avoiding and preventing the orofacial and systemic complications.
Materials and Methods: Psoriatic Arthritis is a chronic systemic disease that is difficult to detect. The diagnosis is made mainly on clinical grounds based on the findings of psoriasis and inflammatory arthritis of the joints. This work reports a case of PA that was diagnosed several years after a TMJ onset because no other signs apart from psoriasis were present Ultrasound, MRI and CBCT were used.
Results: The missed early diagnosis resulted in severe TMJ damage. The TMJ can be the first joint involved in PA. It is often unilateral, with a sudden onset. Symptoms include pain and tenderness of the joint area and the muscles of mastication, morning stiffness, tiredness in the jaws, joint crepitation, occasional painful swelling of the TMJ capsule and painful mandibular movements associated with a progressive decrease in the interincisal opening. In severe cases, ankylosis of the TMJ may occur.
Conclusion: For a correct, early diagnosis of PA, collaboration between the dentist and rheumatologist it is very important. The dentist should recommend in addition to exercise and local pain treatment, an occlusal splint, to help keep the TMJs working properly, improve function, relieve pain, reduce swelling, and prevent further severe TMJ damage.
Disclosure of Interest: None declared.

P 139

Infrared thermography additional non-invasive method in psoriatic arthritis diagnosis

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Introduction: Diagnostic criteria of psoriatic arthritis (PsA) are inflammatory arthritis, the presence of psoriasis and the absence of seropositivity for rheumatoid factor. The evaluation of the PsA activity depends on clinical, laboratory (CRP, ESR) and radiology findings. It is difficult to diagnose PsA in it's early stage.
Objectives: Our study was designed to estimate the joint's surface temperature by using computerized digital thermal imaging camera and to evaluate its association with clinical features of arthritis and laboratory findings.
Materials and Methods: The patients with psoriasis and pain of different joints were included into the study. We evaluated Psoriasis Area and Severity Index (PASI), Disease Activity Score (DAS 28) of arthritis. Laboratory tests for CRP and ESR levels were done. The joints were divided into three groups: peripheral large (coxa, elbows, shoulders, knees), peripheral small (wrists, ankles, metacarpophalangeal, metatarsophalangeal, proximal and distal interphalangeal) and axial (vertebral and sacroiliac) joints. Thermographic and simultaneous digital images of the joints (59 index joints per subject) were taken by using IRT camera ThermaCAM P640 (FLIR Systems, USA). The thermograms underwent specialized segmental analysis. Each temperature measurement of the joint was compared with the reference region of surrounding tissue. Statistic SPSS 20 program was used to compare clinical, laboratory and thermographic findings.
Results: A total of 16 psoriatic patients (9 male and 7 female) complaining on joint pain were enrolled into the study. The mean age of the subjects was 53 years (range 37–69 years). The mean duration of psoriasis was 23 years. 9 patients already had the diagnosis of PsA. Observations by the thermovision camera were made on a total of 944 joints. The supreme relationship between temperature and pain was observed in large joints (69%), lower in small joints (43%) and the least in axial ones (30%). Higher temperature

was detected in large joints than in small and axial ones. We did not find statistically significant correlations between laboratory test results, DAS 28 and thermographic findings in small and large joints. In patients with increased levels of CRP the temperature of axial joints was higher.
Conclusion: Joint surface temperature as direct marker of local inflammation varied with the severity of PsA. Large and small joints reflected reliable temperature increase comparing with surrounding tissues despite normal laboratory tests. The temperature of axial joints and CRP levels correlated directly. But those findings could be influenced by neuropathic pathology in vertebral joints. Our data support the supposition that IRT scanning could be additional informative method to detect early inflammatory processes in the joints when diagnosing PsA.
Disclosure of Interest: None declared.

PSORIASIS IN CHILDREN AND PREGNANCY

P 140
Childhood psoriasis: a 11 years retrospective analysis in croatia

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Introduction: Psoriasis may occur at any age and childhood psoriasis is relatively common. Although psoriasis in children is well recognized, few epidemiological studies are available.
Objectives: The aim of this study was to present the clinical and epidemiological profile of childhood psoriasis in Croatia.
Materials and Methods: A total of 409 children with psoriasis who visited Dermatology Department in Zagreb University Hospital Center from January 2001 to December 2011 were enrolled.
Results: Of 409 children, 258 (63%) had the plaque type psoriasis, 122 (29.8%) had the guttate psoriasis, 11 (2.6%) children had palmoplantar psoriasis, 13 (3.2%) children had flexural psoriasis and 3 (0.97%) children had linear psoriasis. Only one child was presented with severe pustular psoriasis generalisata and one with erythrodermic psoriasis. Five children (1, 2%) with plaque type psoriasis suffered from psoriatic arthritis. The extensor surface of the extremities was the most frequently affected site in our patients, followed by the appearance of lesions on the scalp. Facial involvement occurred in 103 (25.1%) of children. 68 children (16.6%) presented with nail involvement, demonstrating nail pitting, subungual hyperkeratosis and onycholysis.
There were 217 female and 192 male patients, the female to male ratio was 1.1:1.
The family history was positive in 151 children (36.9%). The ages of the children ranged from 3 months to 16 years. All children were treated with topical medications, mostly with topical corticosteroids, followed by vitamin D derivatives and keratolytics. Dithranol was used in some children for resistant lesions, and topical tacrolimus and pimecrolimus were commonly used for facial and flexural involvement. In case of non efficacy of local modalities, treatment with narrow band UVB phototherapy was considered. Systemic treatments, PUVA –bath, methotrexate and retinoids were used only in severe cases of plaque psoriasis; retinoids were used in a child with pustular and in a child with erythrodermic psoriasis. Cyclosporine was used only in one patient. Although biological treatment with etanrecept has been introduced for childhood psoriasis in 2009, we have not gained any experience with it until today.
Conclusion: Results obtained in population studies are used on patient counseling. The appropriate choice of therapy is extremely important in order to acchieve good control of the disease and to minimise side effects of prolonged therapy. Successful management requires education of children and parents regarding the course of the disease and treatment options. They should be properly explained the chronic nature of the disease and its tendency to exacerbations as well as spontaneous remission, especially in childhood.
Disclosure of Interest: None declared.

P 141
Mandibular changes in psoriatic arthritis: 3D volumetric study with cone beam computerized tomography

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Introduction: Early initiation and optimal adjustment of aggressive therapy with disease-modifying anti-rheumatic drugs have been extremely successful in preventing irreversible joint damage. Therefore, the accurate and early diagnosis of Psoriatic Arthritis (PA) and the sensitive monitoring of the disease process are essential. Advanced imaging technology capable of identifying even the slightest trace of erosive joint damage may enable the prediction of future structural and functional deterioration.
Objectives: The purpose of this study is to demonstrate the importance of Cone Beam Computerized Tomography (CBCT) to evaluate the articular damage in patients with PA, through volumetric measurement of the mandibular condyle and the mandible with proportion 1:1.
Materials and Methods: Fifty three patients affected by articular PA were subjected to CBCT. The mandible was isolated from the other structures and it was segmented in various components (condyle, ramus, emibody and emisymphysis) on both left and right hand side. The obtained volumes were estimated with the use of dedicated software.
Results: The results show statistically a very significant difference between affected condyles and healthy ones in patients with unilateral PA ($p < 0.001$), the difference between the volumes of the ramus of the affected side and those of the ramus of the healthy side is statistically significant ($p = 0.09$); there is no significance in the comparison between the volumes in the control group of healthy patients.
Conclusion: The articular damage causes a deficit in the development of the condyle and of the mandibular ramus, because the growth of such structures depends on the condylar cartilage, while the body and emisymphysis grow in a different way. The CBCT is an instrument that helps diagnosing the articular damage, even in the most premature phases of the disease.
Disclosure of Interest: None declared.

P 142
Epidemiology and clinical study of pediatric psoriasis on black skin in Dakar, Senegal

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Introduction: In subsaharian African countries there are so few data concerning the psoriasis of the child.
Objectives: Our objective was to determine the epidemiological, clinical and therapeutic aspects of the pediatric psoriasis in a dermatology unit, at Dakar in Senegal.
Materials and Methods: This was an 8 years (2004–2011) retrospective study conducted at the Dermatological clinic of HALD. All patients under 16 years old with psoriasis were included.
Results: We report 40 cases of psoriasis of the child. The sex ratio was 1.05 and the average age of 6 years. The atopic status was found in 4 cases as follows: 3 cases of asthma and 1 case of atopic dermatitis. The average time of consultation was 5 months. The way the patients consulted was: 28 cases

consulted a general practitioner, 6 cases seen by a paramedic and 5 patients consulted a traditional healer. The treatment prescribed was: the long acting G penicillin in 3 cases, the antifungal drugs in 5 cases, the topical glucocorticoids in 6 cases and the herbal African medicines in 5 cases. The pruritus was present in 14 patients. The psoriasis vulgaris was the predominant form with 20 cases. The other forms were: 12 cases of guttate psoriasis, 6 cases of psoriasis universalis, 1 case in pustular and 1 case erythrodermic. The topical glucocorticoids were prescribed in all the patients. The recurrence were found in 5 cases and 8 patients were lost of follow up.
Conclusion: Psoriasis is a rare and benign condition in children with predominance of simple forms such as psoriasis vulgaris.
Disclosure of Interest: None declared.

P 143
Ilven or linear psoriasis? Delving into mystery

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Introduction: As the medicine advances many disorders previously classified independently or into some other group sometime fall into different category. ILVEN is one such cutaneous manifestation which has been classically classified as inflammatory variant of epidermal nevus. Recently, ILVEN is considered as one variant of psoriasis which may manifest as linear psoriasis in blaschko line due to segmental mosaisim.
Objectives: A 17-year-old male patient presented in skin OPD with mildly itchy, linear skin lesion on left lower trunk and left thigh since 2 years. No history of any lesion since birth or childhood was there.
Materials and Methods: On examination, patient had erythematous, scaly, papular lesions arranged in a linear fashion on left lower trunk and left posterolateral thigh extending up to just below knee. Lesion appeared on midline trunk first and gradually spread to involve thigh and leg. Since last 6 months lesion was static but not showing any improvement with various treatment.
Results: Considering the clinical diagnosis of lichen striatus or blashkitis, skin biopsy was taken. Biopsy showed classical features of psoriasis vulgaris. Diagnosis of linear psoriasis was made. Patient was prescribed topical calcipotriol and topical corticosteroid combination to which patient responded with subsidence of scaling and erythema within 4 weeks. As linear psoriasis is not very known entity literature search was done to better understand the problem.
Conclusion: This case is presented here as this is an exceedingly rare presentation of psoriasis and its unclear status. There are two school of thoughts regarding it's relation to ILVEN. Some authors differentiate it from ILVEN due its favourable response to treatment (1). Others consider ILVEN as probable linear psoriasis still not clearly defined. (2) May be in future with the help of other markers we might be able to establish the exact nature of such disease.
Disclosure of Interest: None declared.

P 144
Psoriasis in a patient with atopic disease – a case report

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Introduction: Psoriasis is a common, chronic, immune-mediated, inflammatory, multisystem disorder with predominantly skin and joint manifestations. A genetic predisposition for the disease combined with systemic and environmental factors result in flares of the disease that has a strong impact on quality of life and long-term survival.
Results: A 15-year-old Caucasian male with no family history of skin disease presented with two year history of chronic plaque psoriasis. The physical signs, most apparent on the hands and feet, but also prominent on the trunk, consisted of hyperkeratotic, erythematous, fissured plaques on palms and soles and numerous infiltrated, erythemato-squamous plaques covering most of his body and severely affecting scalp and nails. Apart from psoriasis, the patient had a personal history of atopic eczema in early childhood that completely regressed and was diagnosed with asthma at the age of 13 with proven hypersensitivity to house dust mite, trees and grass pollen and elevated serum immunoglobulin E (IgE). Routine lab tests were normal. Streptoccocus pyogenes group A was cultured from the nasopharynx and Streptococcus pneumoniae from the throat and the patient was treated with oral amoxicilline. The skin biopsy obtained from the lesion on the left thigh confirmed the diagnosis of psoriasis. The patient's skin care involved application of topical steroid ointment and moisturizers. Despite the treatment new skin lesions appeared. Because of the extent of involved skin psoralen-ultraviolet A (PUVA) bath treatment was introduced with almost complete remission of psoriasis on trunk and extremities after the third treatment, leaving hyperpigmented areas at lesion sites. His skin was dry, but no new lesions appeared on trunk, legs and arms. Hands and feet were treated with PUVA-cream phototherapy with only moderate improvement after 26 treatments. After a month he presented with painful, hyperkeratotic, erythematous, fissured patches on hands and feet although he continued with topical corticosteroid treatment. The patient's quality of life was severely affected, he had difficulties walking, writing, and participating in manual work sessions at school. Despite these treatments, psoriasis remained a persistent and troublesome problem. Systemic treatment with immunosuppressive methotrexate was started at a single dose of 7.5 mg weekly, and was increased to 15 mg weekly. He reported substantial reduction of skin lesions. There were no side-effects registered, except from a mild nausea which was successfully treated with ranitidine. He has continued oral methotrexate with an improvement of the condition, although no complete remission was seen (Fig.1, Fig.2), therefore other treatment options would have to be considered in the future.
Disclosure of Interest: None declared.

PSYCHOLOGICAL/SOCIAL IMPACT OF PSORIASIS

P 145
Anxiety and depression temperaments in patients with psoriasis

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Introduction: Temperament is the stable core of personality and it may represent the underlying continuity between how the person typically is (trait) and how the person temporarily changes (state). Psychosocial factors have been implicated as being important in the onset and/or exacerbation of psoriasis. Studies on the relationship between temperament and psoriasis are scarce.
Objectives: The aim of the study is to determine the frequency of anxiety and depression temperaments in patients with psoriasis, and to sort out it's correlation with the course of the disease.
Materials and Methods: This prospective study was conducted in Military Hospital of Tunis, involved patients with psoriasis, aged 18 or above, who had no history ofserious psychiatricdisorders, between December 2007 and August 2008. The Temperament Evaluation of Memphis Pisa Paris and San Diego Auto-questionnaire (TEMPS-A) has been used to evaluate the temperament in psoriasis patients. Both statistical and descriptive analyses were performed.
Results: In total, 64 patients with plaque psoriasis were included in the study. There were 40 males and 25 females. Themean age was 41.5 $\pm$ 12.9.

Itching was found in 51 (81%) patients. Articular involvement was present in 23 cases (35.4%), however arthritis was rare (6%). Thirty 6 patients (56%) had anxious temperament (AT), while 30 patients (46%) had depressive temperament (DT). DT and AT were significantly more frequent in patients with articular involvement (43% and 60.9% respectively ($p < 0.05$). Poor response to treatment was associated with a higher frequency of DT (66.7% vs. 35.8%) and AT (66.7% vs. 45.3%). No significant difference according to age, or the time course of the disease, was found in the DT and AT groups.

Conclusion: There is an inverse relation between psychological resilience and depressive and anxious temperament. (1) This could explain the poor response to treatment in psoriasis patients with DT and AT. We suggest that evaluation and treatment of psoriasis should also include psychosomatic approaches in clinical practice.

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Disclosure of Interest: None declared.

P 146

Psoriasis uncovered: the results of two quantitative surveys of psoriasis patients in Australia

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Introduction: Psoriasis is a multifaceted, systemic chronic inflammatory skin disease that affects 1–3% of the world's population[1] and a similar prevalence in Australia[2]. However, data measuring the impact of psoriasis on Australians is lacking.

Objectives: To determine the burden of psoriasis on quality of life on patients in Australia, including comorbities and effects on domestic, occupational and interpersonall functioning.

Materials and Methods: Two national quantitative surveys were conducted during 2010 and 2011 among adult Australian psoriasis patients. The 2010 survey assessed medical and physical symptoms; life consequences; and psychosocial impact, while 2011 survey evaluated comorbidities; satisfaction with treatment; cost of treatment; health care resource utilisation; and impact on domains of Health Related Quality of Life (HRQoL).

Results: Thirty seven percent (37%) of patients described their psoriasis as severe, unstable, deteriorating or rapidly deteriorating, with 43% experiencing flare-ups daily. The majority (73%) reported hiding their disease due to feelings of embarrassment and stigmatisation. Psoriasis affected perceptions of sexual attractiveness and resulted in reduced desire for sexual intimacy. Patients' mood changes during flare-ups adversely affected their general health, well-being and personal relationships. Treatment with phototherapy and injectable medications provided highest patient satisfaction. Commonly reported concomitant medical conditions – including joint pain (46%), weight problems (46%), stress (44%), fatigue (37%), depression (32%), and anxiety (31%) – were not treated in most cases. Approximately one third (34%) of patients with psoriatic arthritis (prevalence: 28%) reported they were not being treated for their condition.

Conclusion: Survey results confirm that psoriasis greatly affects personal relationships and general well-being, with concomitant conditions often left untreated. This suggests that management strategies must account for the disease's emotional and social impact as well as its physical manifestations. Non-pharmacological therapies such as education, cognitive intervention and psychological support may be worthwhile adjunctive therapies.

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P 147

Impact on quality of life in patient with eczema vs. patient with psoriasis

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Introduction: Research shows that living with a chronic dermatological disease, such as eczema and psoriasis, can negatively affect quality of life (QoL). QoL is therefore an important objective for clinical dermatological activity and an important indicator in dermatological research.

Objectives: The objective of this study was to compare the impact of psoriasis versus eczema on QoL.

Materials and Methods: One twenty 2 patients with the diagnosis of psoriasis and chronic eczema were selected for the study. The questionnaire contained questions about age, gender, civil status, education, work and illnesses. We used the Dermatology Life Quality Index (DLQI). SPSS Version 12 software was used to analyze the data in this study. Independent t-tests and cross-tables with Pearson's χ^2-test are used to look at differences between the groups of patients.

Results: Of the 122 patients, 58 had psoriasis and 64 had eczema. The mean age was 39.24 years, range 19–67 years.Men represent 55.3% and women represent 44.7%.Most of the patients experience difficulties due to having eczema and psoriasis. Fifty-one percent think that their disease has a very large effect on their life, 19.5% consider it to have a moderate effect on their life and 14.6% think that their skin's disease has an extremely large effects on their life.63.8% of patient with psoriasis consider that their disease has a very large effect on their life but only 40% of patient with eczema consider their disease has a very large effect on their QoL. There are differences between the diagnosis groups in relation to how difficult it is to live with the diseases. An independent t-test concludes that the patients group with psoriasis has more difficulties in their life than the patients group with eczema.

Conclusion: Eczema and psoriasis can affect QoL in different ways, including negative body image, difficulties in socializing, ability to work, performance of daily activities and interests, relationships and sexuality, financial problems. This study's results are consistent with previous international studies which illustrate the important impact of psoriasis and eczema on the QoL but these few studies didn't show differences between the diagnosis groups in relation to how difficult it is to live with the diseases. However, our study illustrates higher effects of psoriasis in comparison to eczema on the patient's life even before treatment.

Disclosure of Interest: None declared.

P 148

Quality of life in psoriasis: ambulatorial usage of PDI- psoriasis disability index - validated for Portuguese language

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Introduction: Psoriasis is a chronic disease that produces great impact on patients' quality of life, which can be rated by some instruments such as the questionnaire Psoriasis Disability Index (PDI).
Objectives: To assess the applicability of PDI, as an aid in treatment decisions, in an outpatient setting and, secondarily, its appropriatenessto our cultural reality.
Materials and Methods: The PDI validated for the Portuguese language was applied in 50 patients of the Psoriasis Ambulatory, Dermatology Service, Hospital Universitário Pedro Ernesto / Universidade Estadual do Rio de Janeiro – UERJ.Additional questions were formulated to better understand the degree of disability caused by psoriasis in each patient, as it diminish the possibility of bias.The extension of the disease was measured by the body surface area (BSA). The result of the PDI score was opposed to the result obtained with the BSA. For the development of the results percentage distribution and frequency were applied to the variables.
Results: PDI is an instrument that can be clinically used. In the analysis of the answers to these questionnaires we realize that some questions allow multiple interpretations.Regarding the comparison between the score obtained in the PDI and affected body surface area (BSA), we find no relationship predictable.
Conclusion: It is necessary to know the socio-cultural reality of the target population for the interpretation of the answers to the questionnaire to be reliable.
Disclosure of Interest: None declared.

P 149

Psoriasis and female sexual dysfunction: a case-control study

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Introduction: Psoriasis have a significant impact upon quality of life and it is commonly associated with a variety of psychosocial problems, as low self-esteem, depression and anxiety. Sexual life is another aspect that can be severely affected in 30–70% of cases.
Objectives: To clarify the occurrence of sexual dysfunction in female patients with psoriasis.
Materials and Methods: A case-control study was performed with women between 18–69 years, in which we tried to assess the impact of psoriasis on sexual dysfunction and on quality of life using the validated questionnaires in Portuguese, Female Sexual Function Index (FSFI) and Medical Outcome Study 36-item Short Form Health Survey (SF-36), respectively. Clinical severity of cutaneous disease and rheumatologic problems, like presence of psoriatic arthritis, were also evaluated on patient's group.
Results: One hundred and fifty women were evaluated, 75 on Psoriasis Group and 75 on Control Healthy Group (CS). Our results showed a statistical higher prevalence of sexual dysfunction on psoriasis patients (58.6%, $p = 0.014$). Desire was the most affected domain, showing a significantly reduction ($p = 0.005$). Quality of life indexes were also found significantly decreased on psoriasis group, especially physical limitation, emotional limitation e mental health indexes.
Conclusion: Quality of life and sexual function are impaired in a considerable number of female psoriasis patients. These considerations reinforce the idea that is important to include measures of psychosocial and sexual morbidity when assessing psoriasis severity and treatment efficacy.
Disclosure of Interest: None declared.

P 150

Impact of psoriasis on quality of life, productivity and occupational activity: about a study in Central Tunisia

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Introduction: The negative impact of psoriasis on life quality is a central consequence of the pathology. In addition to its psychological effects, psoriasis can affect the productivity and the professional activity of the patients.
Objectives: To evaluate the quality of life of patients with psoriasis, and study the impact of this disease on their productivity and occupational activity.
Materials and Methods: We conducted a cross-sectional epidemiological study during the period from January 2010 to October 2011. The target population was patients with psoriasis and in employment who consulted in two consultations of dermatology in the region of the center of Tunisia. This study was based on a self-administered questionnaire to collect: sociodemographic and occupational data, the quality of life (DLQI) and the impact of the illness on productivity and employment (WPAI: PSO).
Results: The study population consisted of 58 cases, mean age was 41.9 ± 12.6 years with a sex ratio of 1.42. 14 subjects exercised in the textile and clothing sector (24.1%), 8 subjects occupying administrative positions (13.8%), 6 subjects were workers in construction (10.3%), and 4 patients were farmers (6.9%). 32 patients (55.2%) had between 1 and 5 outbreaks per year. 56.9% of patients were not monitored by an occupational physician. The average score of DLQI was 16.1 ± 5.46. The disease had a significant effect on the lives of 63.8% of patients and 22.4% declared a very significant impact. The disease was responsible for a mean absenteeism of $36.7\% \pm 37.8\%$ of working time over the last 7 days, a presenteeism average of $58.8\% \pm 29.2\%$ of working time, an average reduction of $66.3\% \pm 30.5\%$ of the productivity and $58.4\% \pm 27.2\%$ of normal daily activities. There was a strong statistically significant positive linear relationship between the DLQI index and the WPAI scores. Workers who had a Koebner phenomenon had rates of absenteeism and presenteeism significantly higher and steeper decline in productivity.
Conclusion: The impact of psoriasis on the occupational activity seems important and requires special attention from the dermatologist and occupational physician.
Disclosure of Interest: None declared.

P 151

Prevalence and characteristics of cyber psoriatic patients

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Introduction: The Internet, through Web sites and chat rooms, has become a popular medium for patients seeking information, reassurance, and exchange of medical information, sometimes of limited veracity. No study has yet been conducted to estimate the importance of cyber psoriatic patients who perform health-related searches on the Internet.
Objectives: To assess the prevalence and the characteristics of cyber psoriatic patients (CPP) who consider internet as the main source of information for their disease.
Materials and Methods: Psoriatic patients have completed an Internet survey including demographic and clinical questionnaires. Among respondents, socio-demographic profiles, self-reported disease histories and

knowledge as well as source of information about psoriasis were gathered. A comparison between CPP and non CPP was performed.
Results: A total of 571 patients met the inclusion criteria and completed the survey. For those, internet is the main source of information for 84 participants (14.7%). 62.9% of the sample considered that the first source of information is their Dermatologist, 6.3% others practitioners, 5.2% pharmacists, 2.6% and 0.4% relatives and support groups for patients. 61.9% of CPP are female, ranged from 19 to 74 years (mean = 40.6). The frequency of online-searches is at least once a month for 40.4% of CPP.Prevalence of stress (45.2% vs. 46.2%; p = 0.13) and anxiety (40.4% vs. 42.9%; p = 0.67) were not significantly different between CPP and non CPP. CPP had less often family history of psoriasis (25.0% vs. 36.1%; p = 0.047). Onset of disease, number of relapses per year, body surface area and severity, as assessed by dermatologist, were not significantly different between CPP and non CPP. CPP are more frequently cared by general practitioners (33.3% vs. 19.0%; p = 0.019). They are more anxious to comprehend causes of psoriasis (72.6% vs. 57.3%; p = 0.008). CPP were more frequently dissatisfied with their dermatologist (Table1):

	CPP	Non CPP	*p*-value
Perceived lack of Dermatologist empathy	40.0%	26.3%	0.0235
Lack of information on effectiveness and non-effectiveness between treatments	46.1%	26.6%	0.0013
Lack of trust in dermatologist ability to provide appropriate pso care	35.4%	16.6%	0.0003

Conclusion: Dermatologists wrongly consider CPP as distressed or anxious patients - a pattern frequently defined as cyberchondria. Our study demonstrates no association between anxiety, stress or severity of the disease and cyber-appetency. However CPP were more frequently dissatisfied with their dermatologist.
Disclosure of Interest: B. Halioua Consultant for: Leo Pharma France, A. Motrunich Consultant for: Leo Pharma France, A. Maury Le Breton Employee of: Leo Pharma France, A. de Fontaubert Employee of: Leo Pharma France, F. Maunoury Consultant for: Leo Pharma France, M.-E. Roussel Employee of: Leo Pharma France, F. Dogniaux: None Declared, J.-F. Stalder Consultant for: Leo Pharma France.

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Impact of disease severity on work productivity and activity impairment in Japanese patients with psoriasis

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Introduction: Psoriasis is a chronic, relapsing, inflammatory skin disease and negatively impacts a patient's quality of life. However, the impact on work and productivity has not been well examined in Japanese patients with this condition.
Objectives: We sought to examine the impact of psoriasis severity on work productivity and activity impairment (WPAI) in patients using the Japanese version of the questionnaire (WPAI-PSO-JPN).
Materials and Methods: Data were collected from 177 psoriasis patients in three Tokyo metropolitan area hospitals. Outcomes as measured by the questionnaire included employment status, total work productivity impairment (TWPI), and total activity impairment (TAI). We investigated the correlation between TWPI or TAI scores and the psoriasis area and severity (PASI) score, affected areas or comorbidities.
Results: Both TWPI and TAI scores were significantly correlated with the PASI score ($p < 0.01$). The TWPI score was significantly correlated with the skin involvement on the back of hands and the conorbidities of arthritis and diabetes mellitus. TAI was correlated with palms, the back of hands and feet, and arthritis.
Conclusion: Psoriasis severity is significantly associated with WPAI in Japanese psoriasis patients. In particular, patients with hand involvement, arthritis or diabetes should be actively treated from the viewpoint of WPAI.
Disclosure of Interest: None declared.

P 153

Prevalence and characteristics of psoriatic patients reporting feeling of stigmatization

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Introduction: People who have psoriasis fear being rejected or negatively labeled, regardless of skin lesions. Feelings of stigmatization impair the psychological well-being of psoriatic individuals.
Objectives: To assess the prevalence and the characteristics of psoriatic patients reporting feelings of stigmatization (PFS). As secondary end point intrinsic and extrinsic factor were evaluated.
Materials and Methods: Psoriatic patients have completed an Internet survey including demographics and clinical questionnaires. Among respondents, socio-demographic profiles, self-reported disease histories were gathered. Patients who reported that people avoided them because of their psoriasis and/or believed that they had a transmitted disease were considered as PFS.
Results: A total of 571 panelists met the inclusion criteria and completed the survey. PFS represented 4.3% of the sample (228 patients reported that people believed they had a transmitted disease and 51 that people avoided them because of psoriasis). Among 236 PFS, there were 61.9% of female who were younger than male (mean age 37.68 vs. 42.75; p = 0.001). Marital status, familial antecedents, age of onset of psoriasis, number of relapses, localization of lesions and severity of disease as assessed by dermatologist were not significantly different between PFS and non PFS. Body surface area covered with psoriasis estimated by tracks hands was significantly more important (3.01 vs. 2.38, p = 0.009). Symptoms associated with psoriasis such as pus (p = 0.003) and joint pain (p = 0.0001) were all significantly more frequent in PFS. Comorbidities, except insomnia (p = 0.015), are not significant predictors of stigmatization feeling. Our study clearly demonstrated frequent failures in dermatologist/patient relationship among PFS (Table below).

	PFS	Non PFS	*p*-value
Lack of interest	32.3%	20.9%	0.005
Perceived lack of communication between dermatologist and patient	24.2%	9.3%	0.0001
Lack of spontaneous discussion about psoriasis by dermatologist with patient	39.9%	25.6%	0.001
Lack of explanation about evolution of psoriasis with medical treatment	45.9%	30.2%	0.0005

Conclusion: Further research on public attitudes toward patient and perception of psoriasis is urgently needed to depict the prevailing degree of stigmatization. Understanding who is at greatest risk for feeling stigmatized could lead to the development of preventive measures.
Disclosure of Interest: B. Halioua Consultant for: Leo Pharma France, A. Motrunich Consultant for: Leo Pharma France, A. Maury Le Breton Employee of: Leo Pharma France, A. de Fontaubert Employee of: Leo Pharma France, F. Maunoury Consultant for: Leo Pharma France, M.-E. Roussel Employee of: Leo Pharma France, F. Dogniaux: None Declared, J.-F. Stalder Consultant for: Leo Pharma France.

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Risk factors of sexual dysfunction in patients with psoriasis

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Introduction: Psoriasis is a chronic, inflammatory skin disease with a significant impact on health-related quality of life and sexual activity.
Objectives: To determine the prevalence of sexual dysfunction (SD) among patients with psoriasis and the associated risk factors.
Materials and Methods: We completed an Internet survey of patients with psoriasis. Participants completed a demographics and clinical questionnaire. Among these respondents, socio-demographic profile, self-reported disease histories were obtained and those who had and did not have SD were compared. Spearmanrank correlationcompleted by Fisher'sexact test andStudent's t-testwere performed to identify risk factors of SD within the last month.
Results: A total of 571 panelists met the inclusion criteria and completed the survey. Sexual dysfunction was reported by 22.9% of the sample. The distribution according to age and gender demonstrated that SD most commonly affects men up to 49 years and women after 50 years. Age of onset ($p = 0.71$), genital localization ($p = 0.6867$), body surface area of more than 2 tracks hands covered with psoriasis ($p = 0.2404$) are not significant predictor of SD. Higher risk of SD were reported in patients with asthma (OR 2.04 $p = 0.0006$) and anxiety (OR1.25 $p = 0.0235$). Depression ($p = 0.7802$), psoriatic arthritis ($p = 0.1967$) and cardiovascular disease ($p = 0.7610$), hypertension ($p = 0.8334$) and high cholesterol level ($p = 0.4025$) are not significant predictor of SD. Our study clearly demonstrated an association between SD and dissatisfactionwith doctor through failures in dermatologist/patient relationship. Non-compliance (Test de Fisher p-value 0.4408 and test de Student p-value 0.0093) is a significant predictor of SD. Stigmatization is associated with negative effects on sexuality.
Conclusion: Patients with psoriasis continue to experience significant impairment of SD. All aspects of sexual functioning should be assessed and considered when evaluating psoriasis and deciding on treatment.
Disclosure of Interest: B. Halioua Consultant for: Leo Pharma France, A. Motrunich Consultant for: Leo Pharma France, A. Maury Le Breton Employee of: Leo Pharma France, A. de Fontaubert Employee of: Leo Pharma France, F. Maunoury Consultant for: Leo Pharma France, M.-E. Roussel Employee of: Leo Pharma France, F. Dogniaux: None Declared, J.-F. Stalder Consultant for: Leo Pharma France.

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Correlation between pasi and DLQI in patients with psoriasis

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Introduction: Psoriasis is a chronic papulosquamous disorder that has a significant negative impact on patients' quality of life.
Objectives: The starting point of this study was our concern about if there was a relation between clinical severity of psoriasis and life quality of psoriatic patients.
Materials and Methods: We used PASI score to determine objective clinical severity of the disease (0 to 72). To understand how a patient's life was affected with psoriasis, we used DLQI score (0 to 30) which consists of patient's answers to ten questions.
Results: A total of 328 (169 females, 159 males) patients with plaque type psoriasis were enrolled. Their age ranged from 9 to 85 years, median being 39 and 43 years for female and men, respectively. Minimum and maximum scores for PASI and DLQI were recorded as 0.3–42 and 0–30, respectively. There was no correlation between PASI score and DLQI score. Also no correlation was found between these scores and parameters such as age, sex and duration of disease.
Conclusion: Although most of the studies confirm the correlation between PASI and DLQI scores, our results show that the clinical severity in patients with psoriasis may not be the sole factor in evaluating the life quality of patients. These results may emphasize the subjectivity of patients' complains, or severity of disease differs from the viewpoints of physicians and patients.
Disclosure of Interest: None declared.

P 156

Assessments of quality of life and therapeutic effects by biologics treatment for psoriasis vulgaris ~a comaparison between biologics and ciclosporin

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Introduction: Recent studies have shown that the quality of life (QOL) of psoriasis patients was markedly impaired. We have reported that a low-dose, short-term ciclosporin (CSA, Neoral®) therapy is effective in improving patients' quality of life in mild to severe psoriasis patients. In the last decade, psoriasis treatments by biologics, such as TNF-α inhibitors and anti-IL-12/23 p40 antibody, have resulted in significant clinical benefits for patients. Only a few studies have investigated the impact on QOL, when biologics were administered in moderate to severe cases.
Objectives: The aim of the present study is to investigate the efficacy of biologics therapy, such as infliximab, adalimumab and ustekinumab, in moderate to severe psoriasis patients and to compare biologics treatments with CSA as conventional treatment for the assessment of QOL in these patients.
Materials and Methods: Patients with moderate to severe psoriasis were administered infliximab, adalimumab or ustekinumab in Tokyo Medical University Hospital. Clinical evaluations on biologics were performed. Surveys were conducted before and after the therapy to ascertain QOL, itch, nail condition, joint pain, stress associated with topical application and therapy satisfaction. QOL was assessed by using the Japanese version of DLQI and Skindex-16 specific to skin diseases, and the Japanese version of the GHQ-28, which assesses mental health.
Results: Data collected from 35 patients were analyzed. After 24 weeks, about 65% of patients achieved a psoriatic area and severity index (PASI) 75 response, and about 20% of patients achieved a PASI 90 response. The total DLQI score significantly decreased and was 0~1 of which "there is no

influence" in about 60% of patients at 24 weeks after administration. The total Skindex-16 score significantly decreased especially in the "functioning" category. GHQ scores also significantly decreased especially in "depression." With regard to patients' satisfaction with their therapy, about 85% reported "satisfied" or "slightly satisfied".
Conclusion: These results demonstrate that the administration of biologics was more efficient and improved psoriasis patients' QOL especially in the "functioning" category than CSA treatment. QOL assessment is a very useful tool for evaluating the value of therapy.
Disclosure of Interest: None declared.

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Psychodermatology: evaluation of psychosocial factors in moderate-to-severe psoriasis

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Introduction: Psoriasis can decrease the level of self-esteem, leading to self-devaluation, emotional distress, irrational beliefs and discomfort in everyday life.
Objectives: Our aim was to investigate the level of lifestyle satisfaction and irrational beliefs in psoriatic patients, in order to assess the possible need for psychosocial treatment.
Materials and Methods: A two-year case-control study was carried out between 2010 and 2012. The study enrolled 100 consecutive patients with moderate-to-severe psoriasis, admitted to a dermatology clinic and 101 healthy volunteers that match the demographic of study-patients, willing to subject themselves to the testing. A series of standardized questionaires were used, such as: The Anamnestic Questionaire, The General Atitudes and Belief Scale - Short version, The Rosenberg Self-Esteem Scale, The Self-Efficacy Scale and The Unconditional Self-Acceptance Questionaire. Statistical analysis was performed using the Statistical Package for Social Sciences (SPSS) version 8.0 (SPSS Inc; Chicago, IL, USA).
Results: The tests have revealed a strong correlation between the presence of the disease and the decrease of subject's satisfaction regarding: body satisfaction (11% of psoriatic patients vs. 54.4% of healthy individuals were satisfied to a large extend), sexual satisfaction (9% vs. 57.4%), social satisfaction (17% vs. 49.5%), family satisfaction (23% vs. 40.5%), professional satisfaction (5% vs. 34.6%), safistaction concerning their own health condition (9% vs. 57.4%); $p < 0.01$. There were highly significant differences ($p < 0.001$) regarding the level of irrational beliefs between the two groups at the following constructs: global self-evaluation, need for achievement, need for approval, need for comfort, absolute requirement for justice, and global evaluation of others; $f > 0.35$ (large effect size).
Conclusion: The results of this study provide support for the hypotesis that psoriasis plays significant roles in influencing the patient's lifestyle and promoting the irrational beliefs. Thus, a holistic approach including primary, dermatological and psychological care is imperative. In addition, the dermatologists must be trained to detect the psychological distress in psoriatic patients and to refer them to appropriate specialists. An effective cooperation between all the parties involved (physicians, family and social network) will improve the patient's mental health.
Disclosure of Interest: None declared.

P 158

The posriasis: the need for close collaboration between the patient and the physician to optimize treatment

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Introduction: Like all chronic diseases occurring on a particular genetic background, it is not possible to promise a permanent cure to the patient and the physician's goal is to gradually improve the quality of life of the patient.
Objectives: Posriasis: the need for close collaboration between the patient and the physician to optimize treatment.
Materials and Methods: *Role of the physician*: It is therefore a very close collaboration and genuine partnership between doctor and patient.
The physician should explain to the patient that psoriasis is not contagious, psoriasis that will not shorten its life and that psoriasis is not the result of a psychological disorder. He must explain to the patient that psoriasis is a consequence of exaggerated acceleration renewal of the epidermis in response to all kinds of aggression and non-specific stress.
All treatments both local and general, are only capable of slowing the rate of renewal of the epidermis.
Results: That should include the patient with psoriasis.
This information is critical to enable the patient to understand the two phases of the treatment of psoriasis s Phase 2 bleaching and maintenance treatment of apparently normal skin and whose purpose is to prevent relapse.
For many patients, psoriasis is a sort of family curse, and they are very concerned about transmitting the disease to their children. The risk of transmitting the disease to their children is not very high and, especially, psoriasis could have their children every chance to be less severe than their psoriasis and therefore the risk of transmitting a severe psoriasis is very low.
Conclusion: *Skin and psychological*: Finally, the skin, the interface between the individual and the environment is more patient psoriasis than in normal individuals, the seat of internal and external stimuli. These interactions give rise to the consistency of the skin, and the mime occasion than the individual himself. The contact stresses the role of the holistic approach to patient consultation = should not favor only of sight and touch, but leave room for listening.
Disclosure of Interest: None declared.

SCORING AND MONITORING THE SEVERITY OF THE DISEASE

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Retreatment in patients achieving response after relapse due to treatment interruption: results from the crystel study

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Introduction: A *post hoc* analysis of the randomised, open-label, 54-week, multicentre CRYSTEL study showed patients who achieved a clinical response (physician global assessment of psoriasis [PGA] ≤ 2) on etanercept (ETN) 50 mg twice weekly (BIW) then paused treatment and subsequently relapsed (PGA > 2) were able to recapture the response after retreatment with ETN 25 mg BIW.[1] In clinical practice, however, patients with PGA ≤ 1 (clear/almost clear) are more likely to be candidates for

intermittent therapy than those with PGA = 2, who are more likely to relapse sooner or have a delayed response.
Objectives: To determine if patients achieving a more stringent clinical response of PGA $\leq$ 1 using ETN 50 mg BIW could regain response after relapse.
Materials and Methods: Patients in the CRYSTEL study achieving PGA $\leq$ 1 during an initial 12 week ETN 50 mg BIW period before pausing treatment and relapsing (PGA > 2) were retreated with ETN 25 mg BIW for up to 24 weeks. Efficacy was measured using the proportion of PGA responders during retreatment, the time to attain response, and the patient satisfaction with their psoriasis treatment using the Patient Satisfaction Survey (PSS).
Results: 131 patients achieved PGA $\leq$ 1 during the initial treatment and relapsed after treatment cessation. After retreatment, 59 (45%) patients achieved PGA $\leq$ 1 and 119 (91%) attained PGA $\leq$ 2. The mean ($\pm$ standard deviation [SD]) and median times to PGA $\leq$ 1 were 9.8 ($\pm$5.2) weeks and 9 weeks for initial treatment, respectively, and 13.6 ($\pm$8.8) weeks and 11 weeks for retreatment on the lower dose, respectively. The mean ($\pm$SD) and median times between initial treatment and the retreatment interval were 12 ($\pm$7.2) weeks and 11 weeks, respectively. The results of the PSS showed the majority of patients were either "very satisfied", "satisfied" or "somewhat satisfied" during both initial treatment (100% in total) and retreatment (97% in total).
Conclusion: In this study, a large proportion of patients who had initially responded to ETN 50 mg BIW treatment but relapsed were able to achieve response when retreated with ETN 25 mg BIW. The majority of patients considered their treatment to be satisfactory.
Reference: 1. Ortonne J.P., Taïeb A, Ormerod A.D. *et al.* Br J Dermatol 2009; 161:1190-5.
Disclosure of Interest: C. Griffiths Grant/Research Support from: Abbott, Biotest, Celgene, Incyte, Janssen, Leo, MSD, Novartis, Pfizer and Stiefel UK, a GSK company, T. Luger Consultant for: Advisory Board for Pfizer Inc., Y. Brault Employee of: Pfizer Inc., J.-M. Germain Employee of: Pfizer Inc., L. Mallbris Employee of: Pfizer Inc.

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The responsiveness to change of the simplified psoriasis index

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Introduction: The Simplified Psoriasis Index (SPI) is a three component summary measure of psoriasis severity (SPIs), psychosocial impact and past history and interventions. SPI derives from the Salford Psoriasis Index but replaces Psoriasis Area and Severity Index (PASI) with a novel composite weighted severity score designed to reflect the impact of psoriasis affecting functionally or psychosocially important body sites. Two complementary versions are available, differing only in that SPI-s can be either professionally (proSPIs) or patient self-assessed (saSPIs). Previous studies have shown the validity, reliability, wide response distribution and interpretability of both versions.
Objectives: This study investigated how well proSPIs and saSPIs discriminate between responders and non-responders to treatment.
Materials and Methods: PASI, proSPIs and saSPIs were completed in unselected psoriasis patients about to start, 4 weeks and 10 weeks after starting a new treatment. Responsiveness was examined by analysing responses of (i) $\geq$50% reduction in PASI ($\geq$PASI–50), proSPIs ($\geq$ proSPIs–50) and saSPIs ($\geq$saSPIs–50) at week four; and (ii) $\geq$75% reduction in PASI ($\geq$PASI–75), proSPIs ($\geq$proSPIs–75) and saSPIs ($\geq$saSPIs–75) at week 10. Area under the receiver operating characteristic curve (AUC) was used for analysis. AUC values of 0.7, 0.8 and 0.9 indicate fair, good and excellent respectively.
Results: One-hundred patients were assessed at weeks 0 and 4; a further 58 were assessed at week 10. There were positive correlations between changes in all three measures ($p < 0.01$ for all comparisons). Overall, SPI differentiated well between responders and non-responders, though PASI–75 and saSPIs–75 discriminated better than PASI–50 or saSPIs–50. Furthermore, saSPIs–50 and 75 performed well as surrogates both for PASI–50 and 75 and for proSPIs–50 and 75.

Week 4: n = 100		Week 10: n = 58	
49 achieved $\geq$ PASI–50		29 achieved $\geq$ PASI–75	
proSPIs	saSPIs	proSPIs	saSPIs
0.86 (0.78–0.93)*	0.72 (0.62–0.82)*	0.97 (0.90–1.00)*	0.79 (0.67–0.91)*
59 achieved $\geq$ proSPIs–50		40 achieved $\geq$ proSPIs–75	
PASI	saSPIs	PASI	saSPIs
0.85 (0.78–0.93)*	0.72 (0.61–0.82)*	0.93 (0.87–0.99)*	0.78 (0.64–0.92)*
67 achieved $\geq$ saSPIs–50		43 achieved $\geq$ saSPIs–75	
proSPIs	PASI	proSPIs	PASI
0.75 (0.65–0.85)*	0.77 (0.67–0.86)*	0.86 (0.74–0.99)*	0.85 (0.71–0.98)*

*AUC (95% Confidence Interval)

Conclusion: This study has shown that both proSPIs and saSPIs are capable of identifying a satisfactory response to treatment as defined by PASI–75. As a corollary, it shows that both PASI and proSPIs are capable of identifying those patients who have themselves recorded a major improvement in their psoriasis as defined by saSPIs–75.
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Psoriasis screening campaign, The Mexican experience

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Introduction: Psoriasis (Pso) is a chronic inflammatory disease, caused by an immunologic disorder which may appear along with multisystemic comorbidities and affects the quality of life (QoL) and the survival of patients.[1-3] It is described that in most of the cases corresponds to a mild disease, along with many others subdiagnosed cases or mistreated. In Mexico, it is calculated that there exists more than 2 million people affected by Pso.[4]
Objectives: It is expose the effort conducted by the Mexican Foundation of Dermatology (FMD) named Pso Screening Campaign for the accurate diagnosis, classification and guidance of patients, along with the validation of statistical results in this population.
Materials and Methods: The non profit campaign was developed in two public hospitals. Previous informed consent, the diagnosed patients with Pso were attended to in terms of clinimetry: Psoriasis Area and Severity Index (PASI), Body Surface Area (BSA), Dermatology Live Quality Index (DLQI), modified Nail Psoriasis Severity Index, registry of Special Manifestations which may lead to a significantly impaired QoL,[5] blood pressure, Body mass index, waist-hip ratio, registry of comorbidities and the burden

of the disease on productivity. Finally, the patient was provided with accurate information regarding the disease and was transferred to a specialized center for medical follow up.

Results: One hundred and thirteen patients attended, 46% were diagnosed with Pso, 67% men and 33% women, the average age was 47.3 years, the average time of evolution was 13.17 year, 78% would have been previously diagnosed and 22% being diagnosed in situ. The average diagnosis time was 9.16a. As for to the classification of the disease, it was identified through PASI and BSA that 26.92% corresponded to a Mild to Severe Pso (MS Pso), at the time of evaluating the DLQI, 44.23% corresponded to MS Pso, putting together PASI, BSA, DLQI and the special considerations in Pso[9] as recommended, 100% corresponded to MS Pso. 3.84% who where only undergoing topical treatment. 40.70% of patients have at least ones related comorbidity and 34.51% of those showed Metabolic Syndrome.

Conclusion: Accurate detection and classification of Pso along with its comorbidities acquires importance in terms of the approach and prompt follow up of our patients which will impact the adequate control of the disease, recovery in QoL and integral follow up of patients with a multidisciplinary team of specialists which, nowadays, seems necessary. Its important the appropriate usage of Pso classification[5] that now we have a precise focus of the disease as it was observed on the evaluated population in which 100% of the cases MS Pso was diagnosed and it is important to provide an holistic follow up, and we may suppose that it may have an impact in reducing morbimortality of them.

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Disclosure of Interest: M. Gómez-Flores Grant/Research Support from: Abbott Laboratories of Mexico.

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Objective evaluation of psoriasis severity using a computerized pasi scoring system

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Introduction: Objective and accurate evaluation of psoriasis severity is important in deciding treatment efficacy. Psoriasis Area and Severity Index (PASI) is currently the gold standard method used in evaluating the severity of psoriasis. However, the measurement of PASI is subjective, with marked intra- and inter-rater variation. An objective method to assess PASI is needed, which is reliable and consistent from investigator to investigator.

Objectives: The objective of our study was to develop a software that can calculate PASI score automatically using a computerized PASI scoring system.We would also like to compare the PASI scores obtained from the computerized PASI scoring system and the dermatologists.

Materials and Methods: Data was collected from March to October 2010. Images of the psoriatic plaques were taken using three equipments, namely Nikon D90 digital camera, Konica Minolta Chromameter CR-400 and Primos portable 3D optical scanner. PASI scores were calculated twice, using the computerized PASI software. Two dermatologists also assessed PASI score of the patients. Kappa coefficient was used to measure the level of agreement between the dermatologists' assessments and the computerized assessments.

Results: A total of 204 patients (163 males, 41 females) participated in the study. The kappa coefficients for computerized assessments of erythema, thickness and scaliness were 0.82, 0.81 and 0.85 respectively. These were higher, compared with the dermatologists' assessments of erythema, thickness and scaliness, which were 0.66, 0.50 and 0.55 respectively.

However, for area assessment, there were better agreements between the dermatologists' assessments, compared with the computerized assessments (0.82 and 0.80 respectively).

Conclusion: A computerized, automatic PASI scoring system has been developed. This system is reliable and provides consistent measurement of PASI scores. It can be utilized, especially in clinical trials to provide an objective assessment of PASI.

Disclosure of Interest: None declared.

P 163

Dramatic disease modifying effect of single ustekinumab injection in psoriasis and psa patient. Two-years follow up case report

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Introduction: Patient 42 y.o. had a history of psoriasis for 3 years, and psoriatic arthritis for 1 year. At first disease was mild and was easilly mannaged with topical treatment. But after immunization for flu and developing the respiratory virus disease within 1 week after immunization (fever, cough, headache) psoriasis has turned severe with multiple joints involvement.

Objectives: Patient was treated with systemic leflunomide, and methylprednisolone in reumathology department with slight effect on joints and poor effect on skin symthoms. Despite systemic treatment (leflunomide and methylprednisolone) skin condition was worsening and showed poor response to topical treatment and UVB narrowband phototherapy. PASI index was between 12 and 17.

Patient has developed diabetes melitus with blood glucose levels 8–10 mmols/l.

This condition probably developed under metabolic changes, and as a result of systemic steroids.

Materials and Methods: Taking into acount patients situation patient was suggested to switch to biological treatment. In July 2010 patient received first injection of ustekinumab. But due to financial problems he had to discontinue biological treatment. After 2 month the result was very significant PASI 3, 2, DLQI 3. Patient was able to discontinue steroids and was taking only leflunomide at 10 mg daily. Joints symthoms also have also decreased significantly.

Results: A 1 year and 2-years follow-up showed skin condition to become mild again PASI <2 DLQI <3. Diabetes melitus is now controled with diet and oral glucose lowering agents. Patient's skin condition is controlled with emolients only.

Conclusion: We suppose that this dramatic change of fluence of the disease should be associated with ustekinumab. The exact mechanism of such disease modification after only one injection is to be discovered. However further observations will show how stable an long lasting will be the remission. It also is crucial that modern systemic treatment of psoriasis and PsA more accessible for patients in countries without reimbursement.

Disclosure of Interest: None declared.

OTHERS

P 164

Coexistence of psoriasis and vitiligo

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Introduction: Is not well known the association between psoriasis and vitiligo in our population.
Objectives: To assess the prevalence of psoriasis and vitiligo association, clinical and epidemiological features of both diseases associated besides the presence of other autoimmune disorders.
Materials and Methods: We retrospectively analyzed clinical data of 334 patients with vitiligo and 795 patients with psoriasis seen from January 2000 to December 2011. We assessed the percentage of association of psoriasis and vitiligo, its frequency according gender, age, clinical types, familial history of both diseases, temporal relation of onset between psoriasis and vitiligo, overlapping of lesions and association with other autoimmune disorders.
Results: Psoriasis and vitiligo were associated in 2.3% of patients. The prevalence of association was greater in women. Familial history of psoriasis was observed in 35%, of vitiligo in 27% and diabetes and thyroid diseases in 15% of patients. Psoriasis vulgaris (85%) and generalized vitiligo (96%) were the most frequent types observed. Onset of vitiligo preceded that of psoriasis in 50% cases and followed psoriasis in 33% cases. There was partial anatomical coincidence of lesions in 55% of patients. It was found association with thyroid disorders in 42% cases, with diabetes in 19% cases and with atopy in 8% cases.
Conclusion: Patients with psoriasis and vitiligo associated present a greater prevalence of family history of these diseases and thyroid disorders and more association with autoimmune diseases than the general population.
Usually onset of vitiligo preceded that of psoriasis and it is rare the overlapping of lesions.
Disclosure of Interest: None declared.

P 165

Effects of granulocyte/monocyte adsorption apheresis therapy on serum vegf and its soluble receptor levels in pustular psoriasis

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Introduction: It has been reported that vascular endothelial growth factor (VEGF) is overexpressed in lesional psoriatic skin and its serum levels are significantly elevated in psoriatic patients with moderate to severe activity. In addition, VEGF serum concentrations are reduced after the conventional treatments for psoriasis. Serum concentrations of soluble VEGF receptor (sVEGF) 1, but not sVEGF2, are higher than healthy controls and show a significant correlation with psoriatic disease activity. Granulocyte/monocyte adsorption apheresis (GMA) therapy is widely accepted to be a therapeutic approach against inflammatory bowel diseases. A few studies have recently shown excellent effects of GMA therapy on various skin diseases including pustular psoriasis (PP), Behçet's disease, and pyoderma gangrenosum. G-1 column used in GMA removes most granulocytes, monocytes/macrophages and a small fraction of lymphocytes from the peripheral blood. However, the mechanisms for efficacy of GMA therapy on PP have not been fully understood.
Objectives: The aim of our study is to evaluate the effects of GMA therapy on VEGF and its soluble receptors in PP.
Materials and Methods: GMA was performedonce aweek for 5 weeks as 1 course. It showed significant efficacy to all 7 PP patients and the efficacy lasted at least 10 weeks after the last GMA therapy. Serum samples were obtained from 7 PP patients before and after GMA therapy. SerumVEGF, sVEGF1, and sVEGF2 concentrations were measured using ELISA.
Results: Serum VEGF concentrations in PP patients were significantly reduced after the first GMA therapy, but the post-GMA VEGF levels increased after 2 and 10 weeks. Serum sVEGF2 concentrations were also significantly reduced after the first GMA therapy. In contrast, serum sVEGF1 concentrations were significantly increased after the first GMA therapy, but the post-GMA sVEGF1 levels were reduced after 2 and 10 weeks.
Conclusion: From these findings, it is suggested that the mechanisms for efficacy of GMA therapy on PP may be different fromthose through VEGF-VEGFR pathway seen in other therapies for PP.
Disclosure of Interest: None declared.

P 166

Factors influencing achievement in nail psoriasis

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Introduction: Few studies have investigated the nail psoriasis, despite that it is a classic manifestation of psoriasis. Factors influencing its occurrence are still unclear.
Objectives: The aim of our work is to provide the epidemiological clinical psoriatic nail in our context and identify risk factors associated with the occurrence of achieving the nail.
Materials and Methods: This was a prospective study over a period of 17 months, conducted in Department of Dermatology, University Hospital Ibn Sina Rabat-Morocco for all psoriasis patients seen in consultation or hospital. The study population was divided into two groups with and without nail damage. The severity of the nail was assessed by NAPSI and severity of skin disease was assessed by the PASI score
Results: A total of one hundred and fifty patients with psoriasis were included. The average age was 41 years. A male predominance was noted. Plaque psoriasis was the most common (50%). Nail involvement was found in 49.3%. After statistical analytical study, the risk factors for the achievement of nail psoriasis severity was assessed by PASI ($p < 0.001$), family history of psoriasis, stress ($p = 0.001$), taking steroids ($p = 0\ 001$) and clinical forms of psoriasis, palmoplantar ($p = 0.008$) and erythrodermic ($p = 0.003$).
Conclusion: In the literature several factors influence the occurrence of nail damage. The majority of published series, considers that the signs of nail disease chronicity. Several studies including ours show the influence of stress, oral corticosteroids, the notion of psoriasis family occurred in the affected nail. The relationship between the severity of skin psoriasis and nail damage is still a matter of controversy. However, our study and other publications have shown that there is a strong correlation between severe (PASI > 10) of nail psoriasis and achievement.
Disclosure of Interest: None declared.

P 167

Phototherapy on psoriasis – five years of our work

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Introduction: Narrow band ultraviolet B (nb UVB) as PUVA therapies are widely used for the treatment of cronic plaque psoriasis but there is limited evidence of their effectiveness.
Objectives: To assess the therapeutic results of phototherapy in patients with psoriasis during the last 5 years.
Materials and Methods: We retrospectively analyzed clinical data of 88 patients with psoriasis referred for phototherapy treatment. We evaluated age, gender, clinical type of psoriasis, comorbidities, type of phototherapy

(nbUVB or PUVA), combination with other treatments, beginning of action (session in wich symptomatic or clinical improvement was observed) and therapeutic response: total improvement of PASI (>75%), partial improvement (50–75%) or poor improvement (<50%). The desertions were registered.

Results: Eighty-eight patients (38 males and 50 females) mean age 41.7 years were included. In all, 58 patients had psoriasis vulgaris. The most common association was with arthropathic psoriasis (16 patients) followed by dyslipemia (10 patients). In most cases (48 patients) it was indicated PUVA therapy; 50% of them showed a beginning of action at the 6° session, 52.8% presented total improvement of PASI and 20.83% gave up. Fifty percent of who received PUVA combinated with other treatments showed a beginning of action at 6° session with total improvement of PASI in 73.9% and 8.69% of desertions. Fourteen patients received nbUVB alone; 50% of them showed a beginning of action at 6° session with total improvement of PASI in 42.85% of patients and 7.14% of desertions. Only three patients received nbUVB combinated with other systemic therapies and showed a beginning of action at 3° session with total improvement of PASI in 66.6% of patients without desertions.

Conclusion: It is observed a faster and sustained beginning of action with PUVA therapy. Nb UVB is effective and more tolerated (less desertions) than PUVA. Both of them show more effectiveness when they are combinated with other therapies.

Disclosure of Interest: None declared.

P 168

Variations in treatment patterns and disease severity among patients with psoriasis receiving their first biologic in European union

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Introduction: Data on comparison of treatment patterns and disease burden among patients with Psoriasis (PsO) across 5 key countries in the European Union (5EU) is lacking.

Objectives: To assess the treatment patterns and current disease severity of patients with PsO receiving their first biologic in 5EU, namely, UK, Germany (DE), France (FR), Italy (IT) and Spain (SP).

Materials and Methods: A multi-country multi-center medical chart-review study of PsO patients was conducted among dermatologists in hospitals and private practices to collect de-identified data on patients who were recently treated with a biologic as part of usual care. Physicians were screened for duration of practice (3–30 years) and patient volume (incl. >2 PsO biologic patients/month) and recruited from a geographically representative panel. Physicians abstracted charts of next five consecutive patients within each center/practice. Physicians abstracted patient diagnosis, treatment patterns/dynamics and patient symptomatology/disease severity. Results from patients on first biologic treatment were analyzed.

Results: In 4Q2012, 225 physicians abstracted 924 eligible PsO patient charts; 690 (75%) patients were on their first biologic (mean-age: 46.9 years, female: 36%). Geographic distribution - UK: 18%, DE: 21%, FR: 19%, IT: 21%, SP: 21%. Time-to-1st biologic from diagnosis (months) / time-on-current biologic (months) varied- UK: 140/17, DE: 119/10, FR: 138/15, IT: 103/18, SP: 127/17. Top-4 first-line biologic treatments observed were etanercept, adalimumab, infliximab and ustekinumab. Treatment experience prior to first biologic varied dramatically (not mutually exclusive): Immunomodulators-UK: 92%, DE: 51%, FR: 68%, IT: 73%, SP: 76%; phototherapy-UK: 55%, DE: 71%, FR: 59%, IT: 32%, SP: 37%; topicals-UK: 41%, DE: 69%, FR: 46%, IT: 43%, SP: 39%; retinoids-UK: 29%, DE: 30%, FR: 34%, IT: 42%, SP: 40%; fumerates-UK: 13%, DE: 69%, FR: 0%, IT: 1%, SP: 0%; corticosteroids-UK: 2%, DE: 32%, FR: 10%, IT: 14%, SP: 10%; Average # of flares in the past yr were: UK-1.0, DE-1.3, FR-1.1, IT-1.0, SP-1.6. Mean current PASI scores were: UK-8, DE-20, FR-12, IT-18, SP-11. Current disease severity per physician judgment was (remission/mild/moderate/severe): UK-45%/25%/20%/10%, DE-26%/19%/21%/35%, FR-42%/34%/15%/9%, IT-39%/19%/31%/11%, SP-44%/29%/26%/2%. Mean number of treatments prior to first biologic varied by current disease severity (remission/mild/moderate/severe): UK-2.7/3.1/2.6/3.1, DE-3.0/3.7/2.7/4.1, FR-2.2/2.6/2.2/2.4, IT-2.2/2.2/2.3/2.1, SP:2.4/2.2/2.3/2.3.

Conclusion: Among PsO patients receiving their first biologic, treatment patterns and disease severity varied across 5EU, with patients in Germany disproportionately experiencing higher disease burden. Factors influencing the observed variations in care and optimal therapeutic approaches (including treatment sequencing) aligned with clinical guidelines to decrease patient disease burden warrants scrutiny.

Disclosure of Interest: None declared.

P 169

Establishment of a new *in vitro* psoriasis model for rnai studies

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Introduction: Diseases of the skin are amenable to RNA interference (RNAi)-based topical therapies. Targeting key components in the pathophysiology of psoriasis using RNAi may represent a successful new therapeutic strategy.

Objectives: We aimed to develop a straightforward and highly reproducible monolayer in vitro psoriasis model useful to study the effects of gene knockdown by RNAi technology.

Materials and Methods: We evaluated the use of keratinocytes derived from psoriatic plaques and normal human keratinocytes (NHKs). To induce a psoriatic phenotype in NHK, various combinations of pro-inflammatory cytokines (IL1-α, IL17A, IL6 and TNF-α) were tested. The model based on NHK met our needs of a reliable and predictive preclinical model, and this model was further selected for gene expression analyses, comprising a panel of 55 psoriasis-associated genes and 5 micro-RNAs (miRNAs).

Results: Only 5 of the 55 selected psoriasis-associated genes were not differentially expressed. Among different psoriasis-specific miRNAs evaluated, miR-146a showed a markedly high upregulation. Gene silencing studies were conducted in the *in vitro* psoriasis model by using small interfering RNAs (siRNAs) and miRNA inhibitors directed against 2 genes (LL37 and DEFB4) and 1 miRNA (miR-203), respectively.

Conclusion: Herein we describe a robust and highly reproducible *in vitro* model for psoriasis that recapitulates expression of a large panel of genes and miRNAs relevant to the pathogenesis of psoriasis. We show that our model could be a powerful tool for testing RNAi-based therapeutics for psoriasis by silencing genes important in its pathogenesis.

Disclosure of Interest: None declared.

P 170

Recalcitrant generalized pustular psoriasis successfully treated with infiliximab

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Introduction: Generalized pustular psoriasis (GPP) is a severe inflammatory disease characterized by recurrent eruptions of sterile pustules on erythematous skin. It is a serious dermatological disease which can result in significant morbidity.
Objectives: Herein we report a case of recalcitrant GPP successfully treated with infliximab in a young woman.
Materials and Methods: Not required.
Results: A 38-year-old female patient with a 26 year history of GPP was followed in our department. The disease was initially treated with acitretin 25 mg/day for 2 years but she continued to have many perodic flares. She was then treated with methotrexate 5 mg/week but the disease was not controlled. The patient was then treated with cyclosporine 4 mg/kg/day with a slight improvement of her GPP. Infliximab was then started at 5 mg/kg (weeks 0, 2 and 6 then every 8 weeks) and cyclosporine was stopped. There was an extremely rapid response noticeable from the third day with complete clearance of the pustular eruption at the end of the first week. Complete clearance of cutaneous lesions was achieved at 12 weeks with no significant side effects.
Conclusion: In our patient, GPP was resistant to classic treatments such as acitretin, methotrexate and even cyclosporine which were taken correctly. Infliximab seems to be a safe and effective therapy well tolerated since it has a favourable side effect profile. It has a very rapid onset of action with a beneficial impact on quality of life. By inhibiting TNFα, it appears to downregulate neutrophil-attractant chemokines which play a relevant role on the pathogenesis of the disease. Infliximab may represent a promising effective therapy limited solely by the cost and the availability.
Disclosure of Interest: None declared.

P 171

Sever forms of geriatric psoriasis

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Introduction: Severe psoriasis is a chronic, debilitating skin disease that affects approximately 2.6% of the general population.There are two problems for an older psoriatic patient, the first one is that most of them develop severe form of psoriasis, the second is that the elderly's comorbid illnesses can be worsened by psoriasis therapies.
Objectives: In our study we tried to show the different particularities of sever forms and those related to therapies used in geriatric psoriasis.
Materials and Methods: We conducted a retrospective study in which we collected all cases of sever forms of geriatric psoriasis between 2008 and 2012 at our department of dermatology. We included patients exhibiting severe psoriasis: pustular, erythrodermic, arthropathic and generalized forms. We studied age, sex, antecedent, duration of psoriasis, triggering factors, form of psoriasis, the affected area skin, the treatments used and their side effects.
Results: We collected 30 cases of sever forms of geriatric psoriasis.The patients' ages ranged from 60 to 88 years and with a male predominance sex ratio:1.72. Only one familial case was noticed.Sixteen patients suffer from hypertension and 10 from diabetes.Twenty-six patients were already followed for psoriasis (86%) with a predominance of plaque psoriasis (73%). Psoriasis was diagnosed for the first time in only 4 cases (13%). Patients make an average of 49 days to consult. Triggering factors were noticed in 50% of cases: drugs, psychological stress, influenza episode and discontinuation of treatment.Generalized psoriasis was noted in 18 cases, pustular psoriasis in 7 cases, erythroderma in 5 cases, and psoriatic rheumatism in 2. Affected area skin ranged from 40% to 90%. Local treatment with corticosteroids and keratolytics was administrated in 100% of cases, only 2 cases were treated by vitamin D derivative. The administration of general treatment (methotrexate or retinoids) was required in 73.3% of cases.Progression was usually good: only 2 cases of drug adverse reaction were noted: 1 case of mouth ulcer and 1 case of hypercholesterolemia.
Conclusion: We noticed clear male predominance. Familial cases aren't so frequent (3%). Older patients frequently have comorbid illnesses including cardiovascular disease, diabetes. Polymedication may induce psoriasis. These comorbid illnesses may also be worsened by psoriasis' therapies. Severe form can inaugurate geriatric psoriasis, but often develops in patients with a history of plaque psoriasis. Generalized psoriasis is the most frequent sever form. Although systemic medications are considered the mainstay of treatment sever psoriasis, we demonstrated in our study that these treatments can't be easily prescribed for elderly patient. Then, we should remember that the goals of treating psoriasis in the elderly are to achieve clinical control of the skin disease, improve quality of life of the patient, and administer safe and tolerable treatments.
Disclosure of Interest: None declared.

P 172

Erythrodermic psoriasis with rupioid lesions

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Introduction: Psoriasis is a disease of the skin characterized by chronic relapse and variable clinical features. Erythrodermic psoriasis is a severe form of psoriasis that can arise acutely or follow a chronic course. Psoriasis also expresses some unusual clinical manifestations such as inverse, rupioid, congenital, elephantine or HIV associated psoriasis. Only a few cases have been reported involving a rare variant of rupioid psoriasis with cone-shaped, limpet like lesions. A 46 year old man was referred to our clinic with wide spread erythrodermic psoriasis of 19 years and limpet-like, conned shaped nodules covered with scales and crusts on his legs. Initially, he was treated with various topical preparations, systemic conventional agents, infliximab and in 2010 he had adalimumab therapy but at the fifth injection there was erythrodermia and it was stopped. He had mental retardation and he was also being treated for hypertension.
Objectives: In this report, in addition to erythrodermia, we also noted the unusual cutaneous manifestations of rupioid nodules coated by exudated crust.
Materials and Methods: Routine laboratory tests, a chest X-ray, Mantoux test (PPD) and Quantiferon test, serology of hepatitis viruses were evaluated and skin biopsy made.
Results: Routine laboratory tests, a chest X-ray, Mantoux test (PPD) and Quantiferon test, serology of hepatitis viruses were evaluated and routine laboratory tests and chest X-ray were normal; Mantoux test (PPD) and Quantiferon test, serology of hepatitis viruses were all negative. A skin biopsy was taken from the limpet like nodule on his leg. Histopathology showed thickness of the stratum corneum with epidermal hyperkeratosis, acanthosis, elongation ofrete ridges, prominanceof dermalcapillaries and mild perivascular inflammatory infiltration.Based on the clinicopathological findings, a diagnosis of ruipoid psoriasis with erythrodermia was established. Following treatment for erythrodermia using etanercept 50 mg/biweekly was seen to alleviate the erythrodermia and rupioid skin lesions

within 4 weeks. There was no recurrence of such lesions during a follow-up period of 4 months.
Conclusion: Psoriaticerythroderma with rupioid psoriasis has not been reported in the literature. Here in we want to report this rare case and discuss the treatment alternatives.
Disclosure of Interest: None declared.

P 173
Erythrodermic psoriasis successfully treated with adalimumab: a case study

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Introduction: Erythrodermic psoriasis (EP) is a severe form of psoriasis involving substantial morbidity and an increased risk of mortality. The therapeutic armamentarium in EP has been refigured by the approval of several biological therapies. Adalimumab is a fully human anti-tumour necrosis factor alpha monoclonal antibody that has proven to be highly effective and safe in psoriasis.
Objectives: To prove the efficacy and safety of adalimumab in erythrodermic psoriasis.
Materials and Methods: We report the case of a 50-year-old male with plaque psoriasis since 1994, with poor response and poor tolerance to conventional treatment. The condition had negatively evolved so that by 2011, 75% of his body was affected, including the palmo-plantar regions and the scalp, and he was diagnosed with EP.
Results: Adalimumab was instated and he presented a highly significant improvement after 3 months of treatment, with no palmo-plantar and scalp lesions. He remained stable after 18 months without adverse events.
Conclusion: This case confirms and supports the literature concerning the efficacy of adalimumab in this difficult-to-manage condition.
Disclosure of Interest: None declared.

P 174
Fourth-year interim results from esprit, a 10-year postmarketing surveillance registry of adalimumab for moderate to severe psoriasis

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Introduction: ESPRIT is a 10 year international observational registry that is prospectively evaluating long-term effectiveness and safety of adalimumab (ADA) in adults treated for moderate to severe chronic plaque psoriasis (NCT00799877).
Objectives: The current analysis determined interim safety and outcomes over a 4 year period.
Materials and Methods: ESPRIT enrolled patients who are continuing treatment with ADA from a current prescription or previous study participation, or initiating ADA within 4 weeks of entering the registry (New Prescription Population, New-Rx). The All-Treated Population (All-Rx) received at least one ADA dose. Patients are evaluated 3 and 6 months post enrollment, then every 6 months for up to 10 years. Effectiveness parameters include Physician's Global Assessment (PGA). Standardized mortality ratio (SMR) was calculated as a ratio of observed to expected deaths; <1.0 indicates that the observed number of deaths was below expected in an age-, sex-, country-matched population.
Results: This analysis collected data from 26 September 2008 to 30 November 2012 for 6040 pts who enrolled and were dosed during that time period (All-Rx), including 2573 (42.6%) New-Rx pts. Median registry exposure was 683 days (range 14–1699 days) for All-Rx and 628 days (14–1527 days) for New-Rx. All-Rx total duration of observation was 12400.9 patient-years (PY) and 5589.4 PY for New-Rx. 425 (7.0%) of All-Rx and 229 (8.9%) of New-Rx pts discontinued the registry; the most frequent reason was withdrawal of consent. The following results were collected for All-Rx patients: At baseline, 57.7% were male; median age was 47 years (range 14–94 years) and median weight was 87 kg (range 41–252 kg). The incidence rate (IR) of serious adverse events was 5.6 events/100PY and adverse events leading to death, 0.3 events/100PY. SMR [95% CI] was 0.38 [0.25, 0.55]. IR of serious infection was 1.2 events/100PY including disseminated TB in one pt; one opportunistic infection was reported. The overall IR for malignancies was 1.1 events/100PY; IR for non-melanoma skin cancers was 0.7 events/100PY; IR for melanomas was <0.1 events/100PY. 53.0%, 54.9%, 56.8%, 59.2%, 59.0%, 59.5%, 60.1%, and 63.2% of pts achieved PGA 'clear' or 'minimal' at 3, 6, 12, 18, 24, 30, 36, and 42 months of treatment, respectively.
Conclusion: No new safety signals were observed with ADA treatment during this interim. IR of serious infection and malignancies remained stable compared to the 3 year interim report (abstract accepted at Am Acad Derm 71st Annual Meeting, 1–5 March, 2013). The observed number of deaths was below that expected. As-observed effectiveness remained stable through 36 months.
Disclosure of Interest: F. Kerdel Speaker bureau of: AbbVie, Amgen, Celgene, Janssen, Leo, Pfizer and Stiefel, Grant/Research Support from: AbbVie, Amgen, Janssen and Pfizer,, D. Thaçi Speaker bureau of: AbbVie, Amgen, Biogen-Idec, Celgen, Janssen, Leo, Novartis and Pfizer, Grant/Research Support from: AbbVie, Leo and Pfizer, Consultant for: AbbVie and Leo, M. Bereswill Employee of: AbbVie, D. Williams Shareholder of: AbbVie, Employee of: AbbVie.

P 175
Methotrexate and liver fibrosis – a survey of 38 psoriatic patients

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Introduction: The need for liver biopsy as a part of monitoring psoriatic patients during treatment with methotrexate is controversial.
Objectives: To analyze liver biopsy results of psoriatic patients treated with methotrexate in correlation to relevant clinical and laboratory parameters.
Materials and Methods: Data on methotrexate-treated patients who underwent liver biopsies between 1989 and 2012 were collected by utilizing the computerized medical database from Rabin Medical Center.
Clinical data included duration of methotrexate administration, its cumulative doses, coexistence of risk factors, serum levels of liver enzymes and lipids, and results of liver ultrasonography. The correlation between these parameters and histopathological findings of the liver biopsies were analyzed using statistical software (SPSS 19).
Results: Liver biopsies were performed after a cumulative dose of at least 1.5 gram of methotrexate. 38 patients who underwent 68 liver biopsies were found: 53 biopsies from 31 patients showed Grade 0-II changes and 15 biopsies from 14 (36.8% of the patients) showed Grade III (fibrosis).
There were no differences in terms of cumulative dose and length of treatment between patients with grade 0-II compared to patients with grade III changes. Of the risk factors for liver fibrosis, only the presence of fatty liver detected in ultrasonography was significantly more common in patients with liver fibrosis compared to the others ($p < 0.05$).
Conclusion: Methotrexate treatment was associated with liver fibrosis in more than one third of the patients. Liver biopsy should be performed as a part of liver safety monitoring, at least in medical centers where newly developed biomarkers and fibroelastography techniques are not available. Liver ultrasonography may serve as an additional tool for monitoring patients before and during treatment with methotrexate.
Disclosure of Interest: None declared.

P 176

Geographic tongue and fissured tongue in 348 patients with psoriasis: correlation with disease severity

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Introduction: Psoriasis is a common inflammatory cutaneous disease. The occurrence of oral lesions is uncommon and has been a subject of controversy. Geographic tongue (GT) is the most frequent lesions in psoriatic patients and exhibit clinical, histological and genetics patterns similar to psoriasis, suggesting that this lesion may represent an oral manifestation of psoriasis. Fissured tongue (FT) is also an oral lesion suspected to be related to psoriasis and it was associated with GT.

Objectives: The aims of this study were: (a) to compare the prevalence of GT/FT in psoriatic patients and healthy controls; (b) to investigate the correlation between GT/FT and the severity of the psoriasis, through of Psoriasis Area and Severity Index (PASI) and age of psoriasis onset.

Materials and Methods: This study was undertaken with 348 Brazilian patients psoriatic (PP) treated at three Dermatology Services and 348 healthy controls (HC). Information regarding demographic characteristics and relevant information from the disease were collected. According to the age of psoriasis onset, the individuals were classified as having early psoriasis (before or at the age of 30) and late psoriasis (after the age of 30). The severity of psoriasis was determined according to PASI, where PASI > 12 defines severe, PASI 7–12 moderate and PASI < 7 mild chronic plaque-type psoriasis. All patients were submitted to an oral mucosal examination. To account for statistical differences in categorical variables, a χ^2 test was used. p-value < 0.05 was considered to be statistically significant.

Results: The PP included 177 (51%) women, 181 (52%) white, at an average of 51 years (± 15), ranging from 18 to 91 years old and HC include 195 (55%) women, 232 (66%) white at an average of 46 years (± 19) ranging from 18 to 94 years. Psoriasis vulgaris (81%) was the most common clinical type. FT was detected more frequently in PP than the HC, with 125 (36%) and 70 (20%) patients ($p = 0.003$), and GT was more frequently in PP than the HC, with 43 (12%) and 10 (3%) cases ($p = 0.002$). The rate of FT (58%) was found to be higher in late-onset psoriasis and the GT (65%) were found in early psoriasis ($p = 0.007$). The PASI scores were as follows: mild in 157 (55%) cases (5% GT, 39% FT and 56% PP-without GT/FT), moderate in 43 (15%) cases (16% GT, 30% FT and 53% PP-without GT/FT) and severe in 84 (30%) cases (25% GT, 30% FT and 44% PP-without GT/FT).

Conclusion: The present study showed that GT and FT are higher in psoriatic patients than in the general population. GT was more common in early onset psoriasis and it is associated with disease severity. FT occurred with more frequency in late psoriasis, supporting that it can be a permanent consequence of GT. Moreover, to improve our understanding, psoriatic patients should routinely undergo a detailed oral examination.

Disclosure of Interest: None declared.

P 177

Psoriasis associated with hepatitis c

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Introduction: Interferons (IFNs) are glycoproteins belonging to the group of cytokines with antiviral, immunomodulatory and antimorales.

It means in effect under the term paradoxical side effect induced by this therapeutic class.

Objectives: Report back side effects of anti-TNF which must be taken into consideration.

Materials and Methods: We report the case of MS patients 55 years of age followed for localized psoriasis limited to a few patches on the elbows and knees until processed by the local therapeutic SCA was lower than 5%.Her disease is over 35 years.06 months ago the patient, before a disturbed liver hepatitis serology was positive demand income (hepatitis C). He started a treatment with interferon alpha-2a (Pegasys) due to an injection of 180 μg subcutaneously weekly partner has an anti viral types ribavirin 800 mg per day.Given that the treatment of hepatitis should be continued for 48 weeks in the fourth month, the patient had a worsening of their psoriasis affecting more than 50% body surface area. Local treatment was started but satisfactory results for the patient. The problem with our patient's treatment offer knowing that other alternatives have liver toxicity.

Results: New side effects are regularly reported.with interferon α, a drug used in dermatology oncology but also in the treatment of hepatitis C often associated with ribavirin.

This combination may be responsible for effects dermatological side as the onset or exacerbation of psoriasis, lichen planus, vitiligo, alopecia and lupus erythematosus.

To this list must be added a number of recent publications of cases of cutaneous sarcoidosis [1, 2].Interferon α involved in stimulating Th1 or "helper." Ribavirin, in turn, would also act on the cellular immune system in favor of lymphocytesTh1. It should be noted that cases have been reported with interferon-α alone [3].A multitude of observations of psoriasis induced or aggravated (80%).

Conclusion: Les traitements biologiques utilisés dans divers specialités, ont donnée une avancée majeur dans la prise en charge de certaines pathologies chroniques.

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Disclosure of Interest: None declared.

P 178

Profile of epidermal microflora in psoriatic patients

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Introduction: Increasing incidence of dermatosis at the background of reduced immunological response to the impact of exo- and endogenous pathogenic agents dictate the necessity of a more profound research of the problem. In addition, antibiotic and immunosuppressive therapy led to activation of saprobic and conventionally pathogenic microflora which is believed to play a prevalent role in the development of dermatosis and, in particular, psoriasis.

Objectives: Purpose of the research was to study profile of epidermal microflora on the skin of psoriatic patients and especially on the affected areas in order to determine its impact on the development and course of psoriasis.

Materials and Methods: The research recruited 47 patients aged 18 to 62 years (28 males and 19 females). Duration of psoriatic process ranged

between 3 months and 29 years. Progressive stage of dermatosis was diagnosed in 29 patinets, stationary – in 18, and specific onychopathy – in all the cases. All of the assessed previously received conventional therapy. Mean PASI was 22.4 (±2.3). Psoriatic scales and segments for the bacteriological and microbiological investigations were taken from the nail-plates and inoculated on the plain agar and Sabourand's medium (with the addition of chloramphenicol). Prior to inoculation local therapy was discontinued. Material for inoculation was obtained from the foci of psoriasis outside prevalent topographic zones for the location of fungal infection, from the areas of intact skin not adjacent to the plagues, and from the areas of prevalent localization of the mycotic process (feet, large folds of skin, naila).

Results: According to the findings of conducted investigations, prevalent components of the profile of epidermal microflora in psoriatic patients were Staphylococcus aureus and Staphylococus epidermidis.

Concluson: Data of the reported research have shown that surface of psoriatic efflorescence serves a favourable medium for epidermal microflora. The course of psoriasis in the assessed patients was mostly progradient by character, so bacterial microflora is likely to be a factor of triggering effect on the structure-functional status of the affected and visually intact skin in psoriasis.

Disclosure of Interest: None declared.

P 179

Psoriasis and aids: The Cuban experience

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Introduction: Althoughthere is no direct relationship psoriasis AIDS describes the clinical manifestations of the disease in patients with HIV / AIDS are much more alarming than in immunocompetent individuals, due to the difficulty of the therapeutic response the increase in serious clarification of disease and injury terminal AIDS.

Objectives: The objective ofthe research was to describe the clinical and immunological these patients and to identify the link between the location of the lesions, CD4 count and viral load changes thereof.

Materials and Methods: Forthese reasons, a clinical case study that included 20 patients with psoriasis and AIDS participated in dermatology at the Instituteof Tropical Medicine "Pedro Kouri" in Havana, in the period from 2001 to 2012.

Results: In 90% of cases, the diagnosis of psoriasis was made before the notification of HIV / AIDS. sites the most common skin lesions were on the legs (20.0%), and the scalp, trunk and soles with 15% each. cases 90% had a CD4 count of <35%, with an average of 19.6%. 65% of patients had a viral load below 55 000 copias/ml^3 with an average value of 63 117, 9 copias/ml^3. patients with lesions on the scalp, soles of the feet and elbows were 9.8 times more likely to have a satisfactory evolution. However, this was not associated with viral load and the immune status of patients.

Conclusion: This study demonstratedthat the characteristics of psoriatic lesions in HIV / AIDS does not differ from that of immunocompetent patients.

Disclosure of Interest: None declared.

P 180

The relationship between psoriasis and tnf-α g308a and g238a polymorphisms

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Introduction: Psoriasis is an immune-mediated inflammatory disease. It is associated with inflammatory cytokines and may be together with cardiovascular comorbidities. Tumor Necrosis Factor (TNF) is a multifactorial proinflammatory cytokine secreted by monocytes and macrophages. TNF is associated with psoriasis, as well as lipid metabolism, coagulation, insulin resistance and endothelial function.

Objectives: In this study, G308A and G238A wild / heterozygous / homozygous allele frequencies and the relationship with hypertension are investigated.

Materials and Methods: In the study, a total of 100 patients-49 women and 51 men between the ages of 18–79 were included. The severity of psoriasis were evaluatedwith area severity index (PASI). Detailed physical and cardiological examinations were performed in all patients. Patients' blood pressures were measured during evalution of flow-mediated brachial artery Doppler dilation (FMD) detections. Patients with psoriasis were divided into two groups: with and without hypertension and TNF-alpha gene polymorphisms were compared according to sub-groups, TNF alpha G308A and G238A mutations were evaluated with melting curve analysis (Real-Time PCR).

Results: The average age of patients was 42.25 ± 14.08 years and the ages ranged from 18–80. The mean PASI scorewas found as7.68 ± 6.66. Minimum PASI score was 0.4, the maximum was calculated as 42.00. 13 of 84 patients with mild psoriasis (16.7%), 2 of 11 patients with moderate (18.2%), and 2 of 5 patients with severe psoriasis (40%) have hypertension treatment.

In the research of G308A and G238A mutation prevalence in patients with psoriasis, TNF-alpha gene G308A was found wild for 78 cases, heterozygousfor 21 cases, mutant for 1 case. TNF-alpha G308A wild / heterozygous / homozygous allele frequencies were found 0.7832 / 0.2124 / 0.0144, respectively. TNF-alpha gene G238A polymorphism was found wild for 83 cases and heterozygous for 17 cases. TNF-alpha G238A wild / heterozygous / homozygous allele frequencies were found 0.915 / 0.085, respectively. Odds ratio showing the relationship of blood pressure and TNF alpha gene G238A and G308A polymorphisms were calculated as OR: 0.657 and 1.111, respectively.

Conclusion: In this study which the relationship of TNF alpha G308A and G238A polymorphisms and hypertension investigated, we detected G308A mutations are more effective than G238A mutations with hypertension risk in odds ratio calculation.

Disclosure of Interest: None declared.

P 181

Acute transverse myelitis during treatment for severe plaque psoriasis with etanercept: a case report

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Introduction: Tumor necrosis factor alpha (TNF-α) inhibitors constitute a class of biologic treatments utilized in the management of psoriasis. Along with the significant clinical improvement, there have been concerns for emerging side effects with the use of biologics.

Objectives: We present a case of a patient with no prior history of demyelinating disease, who developed acute transverse myelitis (ATM) while being treated for chronic plaque psoriasis and psoriatic arthritis with etanercept.
Materials and Methods: A 40-year-old woman with a 12 year history of psoriasis presented with a 5 day history of paresthesias and muscular weakness that began over the lower extremities and gradually extended to the abdomen. She was being treated with etanercept for 21 months. Magnetic resonance imaging (MRI) of the spinal cord revealed a hyperintense lesion at C3 level on T2- weighted images with intense contrast enhancement after gadolinium injection. Cranial MRI and visual evoked potentials were normal. Cerebrospinal fluid examination and laboratory results indicative of infectious or autoimmune cause were negative. Etanercept was immediately discontinued and the patient was given intravenous methylprednisolone 1000 mg/day for 5 days in hospital. She was discharged with a short taper of prednisone and clinical and imaging evaluation at 6 months showed complete resolution of ATM.
Results: In our case, there was no clinical or laboratory finding indicative of any disease as the cause of ATM, so we considered that it would be an adverse effect due to etanercept. During follow up, clinical indicators and MRI findings showed amelioration upon cessation of treatment.
Conclusion: Etanercept has been widely used for treatment of various chronic inflammatory conditions including rheumatoid arthritis, ankylosing spondylitis, juvenile arthritis and several case reports indicate an association between demyelinating adverse events and TNF-α blockers. It is important to ask patients on a biologic agent whether they have experienced any neurological symptoms, as early recognition allows the appropriate workup to diagnosis, disease confirmation and further treatment.The exact relationship between the use of anti-TNFα drugs and new onset demyelination or exacerbation of pre-existing latent disease is not fully understood.
Disclosure of Interest: None declared.

P 182

"To kill two birds with one stone": rifampicin clears psoriasis in qft-positive patients

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Introduction: Guidelines for the use of biologics in the treatment of psoriasis outline that before initiation of therapy with anti-TNF agent screening should take place for both active and latent tuberculosis. There are no 100% specific or 100% sensitive methods for diagnosing latent tuberculosis infection (LTBI). The Mantoux test (tuberculin skin test) has now been replaced by the new interferon gamma release assay (IGRA) in the form of QuantiFERON TB-Gold In-Tube (QFT-GIT) and T.SPOT- TB for the identification of persons who may be infected with Mycobacterium tuberculosis (MTB). QFT-GIT test is an in vitro diagnostic aid that measures a component of cell-mediated immune reactivity to *M. tuberculosis*. The test is based on the quantification of interferon-gamma (IFN-γ) released from sensitized lymphocytes in whole blood incubated overnight with purified protein derivative (PPD) from *M. tuberculosis* and control antigens.
Objectives: To further evaluate the efficacy of Rifampicin for psoriasis in special groups such as QFT-positive patients.
Materials and Methods: We present two male patients with severe chronic plaque psoriasis who were candidates for anti-TNF biologic therapy. QFT was positive in both patients so that they were administered Rifampicin 300 mg bid for 6 months by the regional medical center for tuberculosis prophylaxis. Patients used only emollients for their psoriasis while taking Rifampicin.
Results: On the sixth month their psoriasis was cleared. For patient one, PASI decreased from 28.2 at baseline to 0.4 on the 6th month. For patient two, PASI decreased from 23.8 at baseline to 1.8 on the 6th month, respectively.
Conclusion: These two cases contribute for accumulation of evidence on the use of Rifampicin for the treatment of psoriasis. Existing literature data suggests mild immunosuppessive properties of Rifampicins. Further investigations are crucial to clarify the mode of action of Rifampicin in psoriasis: either as an anti-MTB agent or as an immunosuppressive (anti-IFN-γ) agent.
Disclosure of Interest: None declared.

P 183

Clinical and diagnostic signs of psoriatic erythroderma

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Introduction: Psoriatic erythroderma is severe a form of psoriasis which recuires differential diagnosis with other forms of erythroderma.
Objectives: The aim of investigation was to conduct a complex comparative study of clinical, pathomorphological and immunohistochemical signs of psoriatic erythroderma for further differentiating this condition with other forms of erythroderma.
Materials and Methods: We observed 239 patients including 132 patients with psoriatic erythroderma, 71 patient with progressive psoriasis en plaque, 19 patients with eczematous erythroderma and 17 patients with idiopathic erythroderma using clinical, pathomorphological and immunohistochemical methods of investigation.
Results: Retrospective analysis revealed 239 cases of erythroderma in Vitebsk region for the last 10 years. Psoriatic erythroderma was diagnosed in 132 patients. Patients of male gender predominated as well as persons aged from 31 to 50 (57%). Index of erythroderma in patients with a progressive stage of the conditon was 89.71 + 14.3. It was stated that the use of systemic glucocorticosteroids (1) promoted the development of recalcitrant longlasting erythroderma (24%), (2) decreased the frequency of remission (40.4 + 22.8) and (3) increased the index of erythroderna after treatment compared with eczematous (29 + 14.7) and idiopathic (25.6 + 10.6) erythroderma ($p < 0.05$).
As a result of concucted researches the most important pathognomic signs of psoriatic erythroderma were determined on the base of semiquantative analysis of 28 pathomorphological signs.
Conclusion: The elaborated clinical and pathomorphological criteria allow to conduct the differential diagnosis of psoriatic erythroderma with other forms of erythrodermic condition and to diagnose this pathology at an early stage of clinical examination which is very important for further planning of adequate treatment.
Disclosure of Interest: None declared.

P 184

Is restless legs syndrome associated with psoriasis?

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Introduction:
N/A:
Objectives: Restless legs syndrome (RLS) is a chronic disorder characterized by an urge to move the legs, usually accompanied or caused by uncomfortable and unpleasant sensations in the legs which begin or worsen during periods of rest or inactivity, and partially or totally relieved by movement. The relationship between RLS and psoriasis has not yet been fully clarified.

The aim of the present study was to investigate the prevalence and severity of RLS in patients with psoriasis.
Materials and Methods: A total of 44 consecutive psoriasis patients (21 male and 23 female; aged, 46.43 14.62 years) who visited Psoriasis Unit of Department of Dermatology and Venereology, Akdeniz University Hospital were involved in the study. The demographic and clinical data were recorded. A diagnosis of RLS was made according to the criteria of the International RLS Study Group (IRLSSG), and severity was assessed using the IRLSSG severity scale. We measured serum iron, ferritin and red cell count, haemoglobin, erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), 25-hydroxyvitamin D(3) (25-OH-D(3)), Vitamin B-12 in patients with RLS.
Results: RLS was obtained in 7 (15.9%) patients. IRLSSG severity scale were moderate in 4 patients (57.1%) and severe in three patients (42.9%). 3 (42.9%) patients had iron deficiency anemia, 5 (71.4%) patients had low 25-OH-D(3) and 1 (14.2%) patient had low vitamin B-12 levels among patients with RLS. Two of them had both iron deficiency anemia and low 25-OH-D(3).
Conclusion: RLS is common in patients with psoriasis. In our study group, RLS seems to be associated with iron deficiency anemia, low 25-OH-D(3) and B-12 levels.
Disclosure of Interest: None declared.

P 185

IL-6 and TNF-alpha polymorphisms in portuguese psoriatic patients

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Introduction: Cytokines regulate the growth, function and differentiation of cells and help to steer immune response and inflammation. In this study we focused our attention in two proinflammatory cytokines: IL-6 and TNF-α. It is known that their overexpression is responsible for initiation, maintenance and recurrence of skin lesions in psoriatic patients. Therefore, it is important to investigate genetic biomarkers with functional effects in the genes of those cytokines that could help to predict the severity of Psoriasis.
Objectives: To investigate the hypothesis that allelic variants in IL-6 and TNF-α genes are a risk factor for the developing of severe Psoriasis.
Materials and Methods: A cohort of 178 (74 females, 104 males) psoriatic patients with severe plaque type psoriasis [according to the Psoriasis Area and Severity Index (PASI)] and 206 healthy individuals were selected. Several polymorphisms in the IL-6 gene (rs1800795, rs1800796, rs2069827, rs2069840) and TNF-α (rs361525, rs1799964, rs1800629) promoter region were genotyped. SNP genotyping was performed using Mass Spectrometry (MassARRAY iPLEX–Sequenom).
Results: We observed a lower frequency in the minor allele (C) of the TNF-α rs1799964 SNP in psoriatic patients, compared with controls [(21.9% vs. 29.4%), p = 0.02, OR = 0.675 (0.49–0.94)]. The frequency of the CC genotype in patients was 3.93% while in the healthy control group it was 9.22% [(p = 0.04, OR = 0.403 (0.17–0.98)]. No statistical significant differences were found in the other polymorphisms.
Conclusion: Our data suggest that the rs1799964 C allele could be a protective factor for developing severe psoriasis. These results were similar to the findings of Gallo et al (2012) in a Spanish population. The mechanism to explain this association remains elusive, given the lack of evidence of a functional association.
Disclosure of Interest: None declared.

P 186

Peculiarities of the psoriatic onychodystrophy

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Introduction: The psoriatic onychodystrophy may occur before the appearance of psoriatic eruptions, usually as a symmetrical process with the attack of several nail plates, and thus be the only symptom of psoriasis.
Objectives: In order to research the character of clinical, immunopathological processes of the psoriasis with onychodystrophy and effect topical therapy.
Materials and Methods: Among the examined patients there were 202 men and 51 women. All the patients had the skin coverings examined according to the Psoriasis Area and Severity Index (PASI) and the dermatological index of the quality of life (DIQL). All the patients with onychodystrophy had the miscroscopical and cultural examination of the mycoses.
In the samples of the peripheral blood it was defined the total quantity of the leucocytes; the relative number of lymphocytes and neutrophil granulocytes; the subpopulations of the lymphocytes possessing the antigens CD3, CD4, CD8, CD20 ("Becton Dickinson", USA); the activity of phagocytosis; NBT – test; the content of immunoglobulins of M, G and A classes, the content of the circulatory immune complexes (CIC. The immune regulatory index was evaluated according to the correlation CD4/CD8. Data analysis concerning normal distribution was realized according to Tuki, d'Agostin-Pirson criterion, correlation analysis was perfprmed by Pearson.
Results: 44.7% patients had the concomitant psoriatic attack of the nail plates. The average age, the disease duration and the PASI value were higher (p = 0.001) with the patients with the concomitant onychodystrophy than with the patients not having the nail plates attacked. The level of the DIQL with the examined patients was on average 20.1 ± 0.29 points and strong direct correlation between the DIQL and PASI values was r = 0.90; p = 0.001. In the structure of the nails attack the prevalent cases were the psoriatic onychias the "thimble" symptom (65.5%); the "oil stain" symptom (49.6%); onychogriphosis (10.6%); onycholysis (6.2%).
The concomitant mycosis attack of the feet nail plates was found with 11.5% patients.
The patients deformations in all principal links of the immune protection: the disbalance of the adaptive cellular immunity with the increase of CD3 + -lymphocytes quantity and the evident removal of the immune-regulatory index in the direction of the cells with helping function, the secondary granulocythopathy with the increase of the absorbing and killing activity of neutrophils, the hyperactive gumoral immune response with high level of CIC and hyperimmunoglobulinemia M and A.
Conclusion: The probability of the psoriatic onychodystrophy development was growing with the increase of the patients' age, the disease duration, the severity of the skin process. The found immunological peculiarities can be explained by the more severe psoriasis development with patients with the concomitant onychodystrophy.
Disclosure of Interest: None declared.

P 187

Knowledge about psoriasis among nurses in non-dermatological healthcare institutions

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Introduction: Nurses working in dermatological clinics frequently play leading roles in the care of patients with dermatological disorders. However,

to our knowledge, no analysis has been conducted on the knowledge about psoriasis among nurses working in non-dermatological healthcare institutions and nursing care of the patients suffering from this condition.
Objectives: To investigate the knowledge about the psoriasis among nurses working in non-dermatological primary and secondary healthcare institutions.
Materials and Methods: A cross-sectional study in randomly selected 16 healthcare institutions of Kaunas city was conducted. The study included 505 nurses working in primary and secondary healthcare units. The response rate was 92%. The nurses were given 15 questions about signs of psoriasis, its contagiousness, heredity, skin care, nutrition, and treatment. Based on the responses, the nurses' level of knowledge was evaluated in points (10 – excellent, 9-8 – good, 7-6 – satisfactory, and 5-4 – poor).
Results: The respondents' age ranged from 22 to 70 years (mean age 45.34 ± 10.52); their mean work experience was 23.2 ± 11.42 years. 14.3% of the respondents indicated that their work experience was <10 years, while 43% of the nurses stated that their work experience was 25 years and longer. The study showed that 54.7% of nurses met patients with psoriasis less than once a month, 24.2% did not meet such patients at all, 13.9% of the nurses met patients with psoriasis once a month, and 7.3% - at least once a week. The nurses' level of knowledge about psoriasis ranged from 4 to 10 points. Excellent, good, satisfactory, and poor knowledge was demonstrated by, accordingly, 2.6%, 38.4%, 48.5%, and 10.5% of nurses. Satisfactory or poor knowledge about psoriasis was found among 56.6%, 57.3%, and 66.6% of nurses aged, respectively, <35 years (n = 76), 35–55 years (n = 330), and >55 years (n = 99, $p > 0.05$) and among 61% and 46.4% of nurses with further or higher education level, accordingly ($p > 0.05$). Concerning work experience, satisfactory or poor knowledge about psoriasis was found among 63.9%, 56.7%, and 59% of nurses with, accordingly, <10 years, 10–25 years, and >25 years of work experience ($p > 0.05$). Nurses who during their work met psoriasis patients less than once a month or did not meet at all more frequently (62.9%) demonstrated satisfactory or poor knowledge about psoriasis, compared to those who met such patients once a month (50%) or at least once a week (35.1%, $p = 0.014$).
Conclusion: Study results showed that nurses working in non-dermatological healthcare institutions frequently met patients with psoriasis in their practice. The nurses had insufficient knowledge about psoriasis. Over one-half of nurses had satisfactory or poor knowledge about psoriasis. The level of their knowledge depended upon the frequency of their contacts with psoriasis patients.
Disclosure of Interest: None declared.

P 188

Psoriasis resulting from pegylated interferon alpha and ribavirin treatment of chronic Hepatitis C

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Introduction: Combination therapy with interferon alpha (IFNα) and ribavirin is the most effective treatment available for chronic hepatitis C and is considered to be more effective than treatment with IFNα alone. Side effects of interferon include possible triggering or exacerbation of immune diseases in consequence of immunomodulatory effect.
Objectives: To ascertain the imputability of interferon alpha and ribavirin in induced psoriasis in 2 cases.
Materials and Methods: Case report.
Results: *Case 1*: A 55-year-old man with chronic hepatitis C was treated with peginterferon α-2a in combination with ribavirin. One month later, he developed generalized psoriatic plaques. Cutaneous lesions appeared at the injection sites, in the face, the scalp hair, at the back of the ears, under the breasts and armpits, and in the regions of the anus and elbows. In the second week of treatment, transaminase levels of the patient regressed to normal. Detectable hepatitis C virus RNA in the serum was eliminated at week 14 of treatment. Therapy was continued at the end of 20 weeks after treatment onset. Psoriasis responded moderately to topical therapies and settled completely after stopping interferon.
Case2: A 65-year-old woman with chronic hepatitis C was treated with peginterferon α-2a in combination with ribavirin, which activated palmoplantar psoriasis after two months of treatment. In this patient, psoriasis reoccurred after being inactive for 10 years with extension of psoriatic lesions to the back and the breast. Interferon therapy was carried on until 14 weeks and psoriasis evolution was favorable after stopping treatment.
Conclusion: The unusual features in our first patient included the lack of any previous history or family history of psoriasis, the extensive cutaneous involvement and the active plaques around injection sites that can be explained by the high local concentration of interferon or a Koebner phenomenon.
Withdrawal of interferon leads to an improvement in psoriasis in the two cases and the close temporal relationship between the onset of psoriasis and interferon alpha treatment suggests that the drug may act as a triggering agent.
In these cases the possible causative role of HCV in the induction of psoriasis was ruled out in view of the following: firstly, the association between psoriasis and hepatitis C is rare and controversial; secondly, in the first case, the marked flare of psoriasis occurred during treatment for hepatitis C at a time when serum HCV RNA was negative.
These cases demonstrate that psoriasis may be induced or aggravated by peginterferon α-2a plus ribavirin therapy for chronic hepatitis C.
In front of the worldwide increase in the number of patients treated with the combination of IFNα and ribavirin for HCV infection, increased awareness of the appearance of psoriasis as a drug-induced adverse effect is advised.
Disclosure of Interest: None declared.

P 189

Clinical and sociodemographic factors affecting scalp psoriasis: a comperative case-series study

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Introduction: Psoriasis is a chronic, debilitating disease that commonly involves the scalp. However, the influence of clinical and sociodemographic factors on the development of the scalp psoriasis still remains to be elucidated.
Objectives: The aim of the present study was to determine the related factors for scalp psoriasis.
Materials and Methods: A total of 239 consecutive psoriasis patients (112 male and 127 female) who had been visited Psoriasis Unit of Department of Dermatology and Venereolgy, Akdeniz University Hospital between June 2012 and Jannuary 2013 were retrospectively reviewed. The demographic and clinical data were recorded in a computer-based psoriasis patient record system developed for psoriasis patients by one of us (EA). The logistic regression analysis was used to determine the factors affecting scalp psoriasis and gender, alcohol, smoking as categorical variables and age, Body Mass Index (BMI), Psoriasis Area and Severity Index (PASI), body surface area, age of onset as numeric variables were included.
Results: Scalp (n = 121; 50.63%) was the most commonly affected skin area. Age of onset was found to be 31.97 ± 21.37. BSA and PASI was found to be 7.23 ± 13.3 and 4.12 ± 4.23, respectively. BMI was 28.07 ± 9.28. Prevelance of smoking and alcohol intake was 49.79% and 4.6%, respectively. When the factors affecting the scalp pasoriasis were analysed

according to the sociodemographic and clinical features, early disease onset and PASI were found to be risk factors for the development of scalp psoriasis ($p = 0.003$, $p < 0.001$, respectively).
Conclusion: Scalp was the most commonly affected skin area. Clinical severity and a younger age may increase the risk of the development of the scalp involvement.
Disclosure of Interest: None declared.

P 190

Apoe isoforms in patients with psoriasis

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Introduction: Psoriasis is a chronic inflammatory skin disease affecting 2–3% of the world population. Patients with psoriasis (Ps) have higher prevalence of lipid disorders when compared to unaffected individuals. These patients, especially those with severe and prolonged disease, have an increased morbidity and mortality from cardiovascular events. Apolipoprotein E (ApoE), a protein involved in lipid metabolism, cholesterol and phospholipid transport, has functionally relevant gene variants. It has been described that the ε4 allele may increase the risk to develop atherosclerosis, and the ε^2 allele has been associated with hyperlipoproteinemia type III. An increased risk of psoriasis among persons with these two alleles has also been reported. Nevertheless, the role of ApoE in Psoriasis remains controversial.
Objectives: The aim of this work was to investigate the relationship between APOE-e2/e3/e4 variants and psoriasis in a Portuguese population.
Materials and Methods: A cohort of 178 unrelated (74 females, 104 males) severe psoriatic patients [according to the Psoriasis Area and Severity Index (PASI)] from Centro Hospitalar do Porto/Hospital de Santo António and 285 ethnically-matched healthy controls were studied. Genotyping of APOE was performed using a Polymerase chain reaction restriction fragment–length polymorphism (PCR-RFLP) assay.
Results: The frequency of the ε^4 allele was significantly higher in patients than in controls [(11.5% vs. 7.6%), $p = 0.044$, OR=1.57 (1.01–2.45)].
Conclusion: The ApoE e4 isoform could be a risk factor for psoriatic disease in this population. Our result is in agreement with previous studies in a Spanish population that associated the e4 isoform with severe psoriasis. These results support the hypothesis that ApoE has a modulatory role in inflammatory conditions.
Disclosure of Interest: None declared.

P 191

State of vaccinations in psoriasis patients

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Introduction: The relations of infections to psoriatic disease are manifold. Infections may either exacerbate the skin disease or may be predisposed by immunomodulatory treatment. Accordingly, appropriate vaccinations are advised for patients either before initiating disease or during treatment course.
Objectives: To determine the state of vaccinations in psoriatic patients and their consequences on disease course.
Materials and Methods: Four hundred and one patients with psoriasis were contacted with a written questionaire asking for individual vaccinations, their timely application and consequences on the course of psoriatic disease.
Results: Hundred and seventy one questionaires (42.2%) were returned with very heterogenous states of recommended vaccinations like tetanus, diphtheria and poliomyelitis. In many cases vaccination courses had not been applied properly or were much outdated and needed booster injections. 45 patients were vaccinated against classical influenca, 11 against swine flue. Among the latter, one patient reported a relapse of psoriasis, one a deterioration, nine no alterations at all. Among the other vaccinations (rubella, hepatitis B, typhoid) eight patients reported either deterioration or relapse of their disease.
Conclusion: The state of vaccinations among randomly selected psoriasis patients is very heterogenous and low-level with regard to appropriate protection against individual infections. The state of vaccinations should regularly be chequed within relevant documents when available. Necessary and recommended vaccinations should be applied before initiating any systemic immunomodulatory treatment as well as appropriately be boostered during further disease course.
Disclosure of Interest: None declared.

P 192

Management of psoriasis among militaries: our experience in military hospital of Tunis

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Introduction: Psoriasis is a frequent dermatosis, its prevalence is estimated between 2 and 3%. We present here results of treatment and care for militaries in Military Hospital of Tunis.
Objectives: We conducted a retrospective study on 69 cases of psoriasis collected and hospitalized between 2008 and 2012. We included patients with all type of psoriasis.
Materials and Methods: During the study period, 1633 cases were hospitalized and 69 militaries suffered from psoriasis (4.2%).The patients' ages ranged from 19 to 46 years, the mean age was 28.7 years old with clear male predominance (64 men, 5 women). Patients had: plaque psoriasis (n = 63, 54.8%), Guttate psoriasis (n = 16, 14.7%) pustular psoriasis (n = 14, 12.8%), palmoplantar keratoderma psoriasis (n = 8, 7.3%), erythrodermic psoriasis (n = 6, 5.5%) and inverse psoriasis (n = 2, 1.8%). Mean of the extent psoriasis lesions was 67.2%. Local treatment with topical corticosteroids or a Vitamin D derivative alone or associated with systemic treatment was recommended in respectively 77.6 and 9.2% of cases. The administration of general treated relied on methotrexate was required in 32.3%of cases, UVB therapy in 36.2% of cases, systemic retinoid in 11.6% of cases. Progression was usually good and it was in 85.5% of cases. Among the 69 soldiers suffering from psoriasis, five militaries (5.4%) were hospitalized to determine the military service capacity. four of them were not fit for military service.
Results: Psoriasis is a common, noticeable, inflammatory lifelong chronic skin disease that can have a real impact in everyday life. Even if it's benign its treatment is binding especially the topical ones.In addition to the physical impact, psoriasis significantly affects mental and emotional functioning. Our therapeutic managementis to hospitalize usually these militaries, isolate them from stress conditions and try to treat them by topical or systemic treatment (UVB, Methotrexate, systemic retinoid) even if their psoriasis is moderate or not very extended. Psoriasis, its complications, and its therapies can interfere with concentration, mission accomplishment and compliance with safety equipment use and may have a specific and significant impact that cannot allow psoriatic militaries to fit their service. Therefore, psoriasis is a dermatological disease that should be taken seriously in militaries compared to other people.
Conclusion: Care of psoriasis among militaries can differ from other psoriatic patients by its real impact on their military service.
Disclosure of Interest: None declared.

P 193

Methotrexate and psoriasis: less pain for more gain

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Introduction: Methotrexate is a successful medicine used for treating severe psoriasis and some other serious skin diseases, however at the doses used it can rarely cause side effects that might be severe.
Objectives: To ascertain the frequency of methotrexate's side effects in psoriatic patients.
Materials and Methods: A retrospective study was conducted in pharmacovigilance center of Tunis between 1990 and 2010, showed 26 cases of methotrexate's side effects according to Begaud's method and severity was evaluated according to OMS criteria.
Results: We reported 2 cases, followed up for plaque psoriasis and psoriatic arthritis treated by methotrexate. The first case has presented pruritic papular eruption on the face and the extremities associated with fever and conjunctivitis, 6 months after weekly dosage of 7.5 mg of Methotrexate. The second case which had diabetes, renal failure, and coronary artery disease, had coma with pancytopenia just 6 hours after taking methotrexate in its injectable form. Methotrexate was discontinued and the symptoms of the two cases have settled after 2 weeks for the first case and 3 weeks for the second one.
Conclusion: Methotrexate is used to treat severe psoriasis (affecting more than 20% of the skin) psoriatic arthritis, erythrodermic, pustular and nail psoriasis when creams, ointments, tar products, and phototherapy have not been successful or cannot be used.
Methotrexate can cause dose-dependent side effects,tolerated as nausea, fatigue, loss of appetite, trouble sleeping and skin papular rash, as in our first case, or rarely serious side-effects like coma that has been reported in patients with depression, multiple sclerosis, high blood pressure and diabetes as we have observed in our second case.
Only two cases of Methotrexate's side effects in psoriatic patients among 19 years notifications in a pharmacovigilance center, have been reported supporting that Methotrexate belongs to the first line therapy among systemic treatment of psoriasis and it appears relatively safe.
Disclosure of Interest: None declared.

P 194

Paradoxal psoriasiform eruptions after the anti-tnf alpha therapy in eight patients

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Introduction: Anti-tumor necrosis factor alpha (anti-TNFα) agents are highly effective in the treatment of inflammatory bowel disease, several rheumatological conditions and psoriasis, but they are also known to induce psoriasiform lesions.
Objectives: To analyse the serie of psoriasis / psoriasiform reactions during anti-TNF therapy in eight patients.
Materials and Methods: We performed retrospective analysis of eight previously described cases of psoriasis or psoriasiformn eruptions induced by anti-TNFα treatment. All lesions have been examined histologicaly.
Results: A cohort including four males and four females referred to dermatology clinic because of psoriasiform rash which developed during anti-TNF therapy has been analyzed. Two patients have been treated for Crohn's disease, two for ankylosing spondylitis, two for hidradenitis suppurativa, one for rheumatoid arthritis and one for psoriasis. Psoriasis appeared in seven cases de novo, in one anti TNF treatment led to worsening of preexisting psoriasis. Plaque-type psoriasis appeared in three patients, palmoplantar pustulosis in three and psoriasiform reaction in two. Palmoplantar pattern represented a most characteristic pattern of disease presentation. Skin reactions were associated with adalimumab (4×), infliximab (3×) and golimumab (1×). Duration of treatment varied from 1 to 26 months. Different ways of management has been used in presented group. Addition of methotrexate in two and topical steroids in one patient led to significant improvement. Treatment had to be switched to another anti-TNF drug in four patients. Anti-TNF therapy has been stopped in one case.
Conclusion: Psoriasis / psoriasiform reactions induced by anti-TNF treatment are type of adverse event, which involves mainly rheumatologic and gastroenterologic patients. Presented group correspond with previously reported case series with respect to pattern of the disease, causses and response to the treatment. Pathogenesis of this type reaction is not clear, possible hypotheses will be discussed. We propose a guideline for the management of this type of reaction.
Disclosure of Interest: None declared.

P 195

Fournier's gangrene in a patient treated with etanercept: a report of a case

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Introduction: Biologic therapies are a major component of the therapeutic armory of psoriasis andpsoriatic arthritis.many dermatological side effects have been described. Among the infection in biotherapy, the skin is the second most affected site after the lung (3).
Objectives: We report the case of a patient treated with etanecept who presented a fournier's gangrene.
Materials and Methods: Samia A, aged 2. She had psoriasis Arthritis which evolved from the age of 17 with extensive cutaneous and arthralgia and arthritis of small and large peripheral joints with axial attack.
The patient underwent several treatments with partial improvement. She was a candidate for biotherapy.
Investigations: øhypochromic microcytic anemia.
øCRP 48 mg / VS: 53/74, positive rheumatoid factor, protein electrophoresis chronic inflammation.
øRadiation: spondyloarthropathy. Asymmetric basin. Anomaly in protrusive type acetabular depth bilaterally. Correctness of the cervical spine.
The patient received 50 mg of etanercept. Seven days after the injection, pain right buttock with a low grade fever of 37.7°C, and impaired general condition, thickening of the skin, evolving rapidly to the formation of a collection taking all buttock, with sensation of crepitation. Few days later a fistula appeared. Extensive gangrene was formed associated with a deterioration of the general condition.
NFS: GB = 15.4 × 10^3 mm^3 GR = 3.90 × 10 6 mm^3 HB = 7.7 g/dl.
Bacteriological examination: E.Coli.
Blood electrolytes: Na = 132 m Eq/l K = 2.7 mEq/l.
Shereceived triple antibiotic, ciprolon; gentamycin and flagyl, with several broad wide surgical debridement associated and electrolyte balance and transfusion. This resulted in improved clinical status and biological constants.
Results: Fournier's gangrene is a form of necrotizing fasciitis genital, perineal and perianal infection resulting from a polymicrobial. Skin infections occurring under anti-TNF pose two types of problems, diagnosis and evolutive. Infectious agents potentially involved are numerous, it may be viral infections, bacterial infections (abscess, cellulitis), fungal or mycobacterial.
The clinical manifestations are often rough at first, especially nonspecific.
Among 430 patients psoriatic arthritis receiving infliximab, etanercept or adalimumab, 15 developed infections, with a case of Fournier's gangrene with sepsis (1).

Conclusion: We report the second case of Fournier's gangrene under anti TNF occurring in a patient with psoriatic arthritis. If undeniable progress has been achieved through the development of new therapies, the risk of infection, opportunistic or not, associated with these treatments must be recognized in order to detect early and educate the patient to its occurrence.
Disclosure of Interest: None declared.

P 196

Coexistent psoriasis and discoid lupus erythematosus: a case report

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Introduction: Lupus erythematosus has been rarely reported in association with psoriasis. Making the diagnosis is often difficult and relies on clinical and histological findings.
Objectives: To describe an additional example of the association of psoriasis and discoid lupus erythematosus (DLE). Pitfalls in the management of these two diseases is discussed.
Materials and Methods: Case report.
Results: An otherwise healthy 61-year-old man presented with erythematous scaling patches on his face and his back of simultaneous onset. No other complaints were reported. Physical examination of the skin showed erythematous dry scaling patches on his face, trunk and hands. Lesions were rather hyperkeratotic with central atrophy on the cheek and on the forehead. Routine haematological and biochemical tests were within normal limits. The antinuclear antibody was negative. A biopsy specimen from the back lesions was compatible with the diagnosis of psoriasis while another biopsy specimen of the face patch was consistent with DLE. Considering clinical and histological findings, a diagnosis of DLE associated to psoriasis was made and therapy with hydroxychloroquine and topical corticosteroids was started with improvement of the two plaque-types lesions.
Conclusion: The combination of DLE and psoriasis is unusual. In our patient, this association could be related to chance, but the almost simultaneous onset might provide additional evidence to the hypothesis that both DLE and psoriasis may have an immunologic basis. The mechanism of interaction between these two diseases is unclear; however, immunologic dysregulation and T-cell stimulation through superantigens may be the common mediators of these disorders. Psoriasis with coexisting DLE presents some challenging therapy problems. Modalities that may benefit one disease may exacerbate the other. For example, antimalarials are effective in the treatment of DLE but could aggravate psoriasis. In our patient, no psoriatic flares were seen under hydroxychloroquine.
Disclosure of Interest: None declared.

P 197

Adalimumab-induced lupus erythematosus

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Introduction: Adalimumab is an anti-tumour necrosis factor agent widely used in moderate to severe psoriasis that has a good safety profile. One of the most common side-effects of adalimumab is the development of autoantibodies, but the clinical presentation of immune-mediated complications upon adalimumab therapy, including a lupus-like syndrome, is rare.
Objectives: A case of adalimumab induced systemic lupus erythematosus is reported, and the literature is reviewed.
Materials and Methods: Case report: A 46-years-old woman with ulcerative colitis (UC), well controlled with azathioprine was remitted to dermatology for cutaneous evaluation. She presented an extensive psoriasis with flexural and genital involvement not responding to topical therapy. Adalimumab therapy (40 mg subcutaneously every 2 weeks) was instituted, with a very good response in 12 weeks. At that time CU was also well controlled, and azathioprine was stopped. Three months later a polyarthralgia and polymyalgia symptomatology began, followed by a pleural effusion and elevation of antinuclear antibodies (ANA). Adalimumab induced lupus was suspected, and treatment was discontinued. Therapy with 60 mg prednisone daily was initiated, that was gradually reduced after the resolution of the symptoms, and ANA returned to low levels.
Results: A case of a 46-years-old woman with UC and psoriasis that presented an adalimumab induced systemic lupus erythematosus with polyarthralgia and pleural involvement is reported, and the literature is reviewed.
Conclusion: Anti-tumour necrosis factor (TNF) agents are now widely used in the management of patients with inflammatory bowel disease, arthritis and psoriasis, and the efficacy and safety profile of these agents has led to their increasing use in clinical practice. Infectious complications and immunogenicity are the main drawbacks of these drugs. One of the most common side effects is the development of autoantibodies, mainly antinuclear antibodies (ANA), usually without clinical manifestations. In the recent years there has been an increasing number of reports of clinical features of discoid, subacute or systemic lupus erythematosus during the treatment with anti-TNF therapy.
Disclosure of Interest: None declared.

P 198

Leprosy tuberculoid associated with psoriasis treated with immunobiological: report of a clinical case

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Introduction: Leprosy is a chronic granulomatous infection caused by the *Mycobacterium leprae,* uncommonly described in association with psoriasis. Brazil is the second country in the number of new cases worldwide. The defense against this microorganism is performed by the cellular immune response, mediated by cytokines (TNF-alpha, IFN-gamma) and oxidation's mediator. The treatment is performed with polychemotherapy (rifampicin, dapsone, clofazimine).
Objectives: To describe a clinical case of leprosy (tuberculoid type) developed in a patient with previous diagnosis of psoriasis after 8 months of treatment with infliximab.
Materials and Methods: Descriptive study of a clinical case.
Results: Patient MCS, 63-year-old, female, with diagnosis of psoriasis since 5 years of age, using infliximab for 8 months, refractory to the use of methotrexate, she developed suggestive lesions of leprosy in the upper and left lower limb. Physical examination showed disturbance of thermal and pain sensitivity. The smear was negative and confirmed the histopathological diagnosis of tuberculoid leprosy, being initiated to paucibacillary polychemotherapy with rifampicin and dapsone.
Conclusion: The association of leprosy and psoriasis is poorly described in the literature. Considering this fact, the appearance of new lesions leads to the need of making a differentiation between the recurrence or worsening of psoriasis and concomitant emergence of another disease like leprosy, especially in endemic areas.
Disclosure of Interest: None declared.

P199

Impact of psoriasis on work status and work productivity. Results of Polish Move2Work cross-sectional study

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Background: Patients with psoriasis are subject to various forms of work limitations due to their disease – from difficulty in finding and maintaining a job due to their appearance, influence of stress and working conditions on disease activity to significant amount of time needed to follow treatment. This study was centered on work loss caused by worker's temporal absence and 'lack of efficacy during working hours due to the disease.

Objectives: To measure loss of productivity at work for psoriasis patients in Polish national survey.

Methods: Eight hundred and twenty two consecutive Polish adults in productive age (18–60 for women and 18–65 for men) with previously diagnosed psoriasis, during a visit to one of the 30 dermatology outpatient centers around the country in November and December in 2012. Patients filled out Work Productivity and Activity Impairment (WPAI) questionnaire, while the recruiting dermatologists assessed their disease activity level on PASI scale.

Results: Patients, 51% women, mean age 43.29, had mean PASI result of 10.28 (SD 9.57), 52% had mild (1–10 points on PASI scale), 30% - moderate (10–20 points), 13% - severe psoriasis (>20), 5% were in remission. Twelve percent had psoriatic arthritis, 3% were treated biologically.

Fifty seven percent of patients were employed, only 9% collected disability pension. The 13% unemployment rate was higher than respective index for Poland (10%). Working respondents declared an average 9% absenteeism rate (% of work time missed) and 28% presenteeism rate (% of impairment while working). Overall work productivity loss for working patients equalled 35% and was higher for subgroups with higher disease activity (25% for patients in remission, 50% for moderate and 89% for high disease activity group). Daily activity impairment, assessed by all patients in the study was estimated even higher, at 38%.

Conclusions: Psoriasis is the cause of reduced work ability and lowered work productivity in patients in productive age in Poland. The study is a unique national data source for indirect cost analysis for psoriasis.