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Letter to the Editor

Topiramate in children with autistic spectrum disorders

Dear Sir,

Recurrent aggression, self-injury, and severe tantrum are a common reason of clinical referral and pharmacological treatment among children with Autism Spectrum Disorders (ASD). In these cases, mood stabilizers, antipsychotics and sedative agents are often used with variable results. Drug-induced weight gain is an important drawback for a number of these treatments. Topiramate (TPM) is an anticonvulsant medication that has been used also in the treatment of children with ASD [1]. The fact that TMP does not usually increase body weight gain makes it a potentially interesting compound when there is concern about obesity [2].

In the April 2005 issue of the *Brain and Development*, Canitano report on 10 subjects with ASD treated for 18 months with TPM to contract weight gain and obesity [3]. Four patients had a mild to moderate weight loss, while two children continued to show weight gain. Moreover, a positive effect as mood stabilizer was observed in the subject who was treated with higher dose of TPM.

We would like to draw your readers' attention to our results on five boys (age: 9–13, mean 11.4 ± SD 1.6) with diagnosis of DSM-IV autistic disorder referred for management of severe behavioral problems. The Childhood Autism Rating Scale and Autism Diagnostic Observation Schedule were used to assist in diagnosis. On the WISC-R in verbal children, or the Leiter in non-verbal patients, two patients performed in the mild mental retardation and three in the moderate mental retardation range. The mean +/− SD IQ for the five patients was 54.1 +/− 27.2 . Two had received at least one trial of a typical antipsychotic and had discontinued it secondary to lack of efficacy or development of adverse effects.

TPM was started at the dose of 0.5 mg/kg/day for 2 weeks, followed by increments of 0.5 mg/kg/day at 2-week intervals, up to a maximum of 2.5 mg/kg/day (mean TPM dose was 2.1 mg/kg/day). Two patients received add-on SSRI drug from six months (sertraline) for obsessive behavior and one was undergoing long-term therapy with risperidone. Duration of treatment ranged from 10 to 33 weeks, with a mean of 22 ± SD 8.33 weeks.

Treatment response was assessed using the Clinical Global Impressions scale (CGI-I) and Child Behavior Checklist (CBCL).

Two patients were judged to be responders, as defined by a score of 1 or 2 on the CGI-I and they improved hyperactivity, interpersonal behavior, irritability or anger, anxiety, and depression reaction. These two patients also showed good improvement on two subscales of the CBCL (Anxious/depressed and Attention problems). The three other patients did not show any clinically significant improvement (one discontinued treatment after 10 weeks). Adverse effects were mild and TPM was well tolerated. One patient developed mild sedation. Weight and BMI (kg/m^2) were significantly reduced in one patient (– 6.0 kg over a period of 12 weeks/BMI change – 2.1), slightly reduced in another patient (– 1.9 kg over 12 weeks/BMI change – 0.9), and unchanged in the others.

In conclusion, our experience, based on a small sample of severely impaired children with ASD, unresponsive to previous treatments, suggest that clinical response to TPM is rather variable and that most children, though tolerating the medication well, did not show substantial improvement. Identification of patients characteristics predictive of response to TMP would be useful, but it would also require conducting large clinical studies.

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