

# Higher Retransplantation Rate Following Extended Right Split-Liver Transplantation: An Analysis From the Eurotransplant Liver Follow-up Registry


## TO THE EDITOR:

We read with interest the article by Andrassy et al. in *Liver Transplantation* on the Eurotransplant experience with extended right graft (ERG) split-liver transplantation (SLT).<sup>(1)</sup> In that series, an ex situ split was usually performed in pediatric centers, shipping ERGs to adult centers, resulting in prolonged cold ischemia time (CIT), which is identified as a significant risk factor for graft failure. These results suggested reconsidering what is the best SLT allocation policy.

The Italian SLT experience started in the mid-1990s, and an in situ technique was chosen from the beginning. The SLT program was initially promoted in northern Italy and then implemented nationally, involving both pediatric and adult transplant centers, reaching >300 split-liver procedures in a few years<sup>(2)</sup> and rapidly decreasing the pediatric wait-list times and mortality.<sup>(3)</sup> Donor age, CIT, retransplantation, United Network for Organ Sharing (UNOS) I-IIA status, and center volume were early ERG risk factors,<sup>(2)</sup> whereas in the long term, these were donor age,

donor-to-recipient weight ratio, retransplantation, and UNOS I-IIA status.<sup>(4)</sup> Excellent SLT outcomes were reported thereafter in single-center series both for left grafts<sup>(3)</sup> and for ERGs<sup>(5)</sup> even using pediatric donors.<sup>(6)</sup> The national SLT policy<sup>(7)</sup> was further enhanced in 2015: all livers from deceased adult standard risk donors aged  $\leq 50$  years are now mandatorily evaluated for SLT, unless allocated to urgent patients; if SLT is performed, centers are free to allocate the ERG other than on the Model for End-Stage Liver Disease score.<sup>(8)</sup> Nowadays, SLT represents almost 10% of all LTs performed in Italy versus 5% in the Eurotransplant area and 1% in the United States; in the last 18 months, 267 (18.1%) adult donors were proposed for SLT and 3 (1.7%) pediatric LT candidates died on the waiting list, of whom 2 children were UNOS I status.

From our experience, an intention-to-split allocation policy, with adoption of the in situ technique and flexibility in ERG allocation, is crucial to expanding the use of SLT and ensuring good allograft outcomes.

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*Abbreviations:* CIT, cold ischemia time; ERG, extended right graft; LT, liver transplantation; SLT, split-liver transplantation; UNOS, United Network for Organ Sharing.

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