

LETTER TO THE EDITORS

Response: Domino liver transplantation as a valuable option

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I read with interest the letter from Dr. Yamamoto and Prof. Ericzon, *et al.*[1], regarding my commentary 'Is living donor liver transplantation really equivalent to deceased donor liver transplantation?' published in the August, 2013 edition of *Transplant International* [2]. The authors admonished us of an additional potential option to compensate the critical shortage of organ donations, i.e. transplantation using liver grafts from patients with familial amyloidotic polyneuropathy (FAP), a well-established procedure called domino liver transplantation (DLT). As Dr. Yamamoto described, the explanted liver is morphologically and functionally normal apart from the genetic defect that leads to production of the transthyretin variant within some decades, and the donor is comparatively young and the cold ischemia time would be short if the amyloidotic liver was used for DLT in the same transplant center. Those might be the intrinsic advantages of FAP to the usage for living donor liver transplantation (LDLT). The proposed selection criteria defining who qualifies for DLT seem reasonable. While Dr. Yamamoto emphasized that DLT has the advantage of a whole liver graft with the sufficient volume, similar to deceased donor liver transplantation (DDLT), he also indicated the feasibility of domino split-liver transplantation from a living donor, in which the liver from a patient with FAP scheduled for LDLT could be split and transplanted into two patients with end-stage liver disease [3]. This statement might cause us to become aware of the significance of deceased-donor split-liver transplantation to expand the donor pool for DDLT, on which I did not mention in my commentary. Infants have the highest wait-list mortality of all liver transplantation candidates. Deceased-donor split-liver transplantation, a technique that provides both an adult and pediatric graft, might be the best way to decrease this disproportionate mortality. Yet concern for an increased risk to adult split recipients might have discouraged its widespread adoption. Recently, it has reported that the risk of graft failure is similar between split and whole-liver recipients in the vast majority of cases, which demonstrates that the expansion of split-liver allocation may be possible without increasing the overall risk of

long-term graft failure in adult recipients [4,5]. Particularly in regions with low deceased donation rates, like Japan, split LT of deceased donor organs should be encouraged [6]. Further concrete evidence of excellent outcomes in both pediatric and adults recipients receiving split grafts by prospective analyses might escalate this challenging procedure. In addition, collaborative networks may need to be established in order to maximize the liver splitting and consolidate suitable allocation.

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Conflicts of interest

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