

Management of Donor Steatosis-An Unaddressed Issue in India

To

The editor

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Respected sir

With great interest, we studied the recent **INASL guidance paper on Nomenclature, Diagnosis and Treatment of Nonalcoholic Fatty Liver Disease (NAFLD)**.¹ This paper has been written very well taking in to account recent Indian studies and has given a detailed description of current nomenclature, approach to patients with NAFLD and finally diagnosis/management of these patients. More importantly, this paper has also thrown some light on role of Liver Transplantation (LT) in management of patients with decompensated cirrhosis. However, I would like to make few comments.

1. Live Donor Liver Transplantation (LDLT) constitutes the major bulk of LT in India in contrast to western countries (predominantly cadaveric)
2. As prevalence of NAFLD is 9–53% (depending on urban-rural and geographical distribution), Donor Steatosis (DS) is a major obstacle to get a suitable donor and is often the leading cause of donor rejection in Indian population.^{2,3}
3. Due to fear of complications and misconception regarding LDLT, only few relatives of the recipient come up for donation. Out of them it becomes extremely difficult to find an optimal donor without significant hepatic steatosis (Liver Attenuation Index >6)
4. Ultimately, often marginal donors with moderate steatosis are taken up in case of emergency scenarios to save the patient. However, it carries significant risk to both the donor and the recipient (e.g. primary non-function of liver).
5. Choudhary, N. S *et al.*, have shown rapid reversal of hepatic steatosis in motivated donors who were later successfully taken up for LDLT(4). In this study, they included patients with NAFLD (without underlying metabolic syndrome or steatohepatitis or fibrosis) based on liver biopsy. Sixteen patients were advised aggressive lifestyle modification measures to achieve weight loss. At follow-up, repeat biopsy showed improvement in steatosis in all but one patient. Fourteen patients successfully underwent liver donation without any complications after achieving significant

weight loss and improvement in hepatic steatosis.⁴ More recently, a systemic review and meta-analysis has also been conducted to address the issue of donor steatosis. This meta-analysis has included 6 studies (102 patients). In all these studies, weight loss was attempted in donors using low-calorie diet and physical exercise. About 90% of donors were able to reduce steatosis and finally about 90% of them underwent a successful donation. In rest of the donors, presence of fibrosis/steatohepatitis or recipient issues precluded a successful donation. Post-operative biliary complications and overall outcome were similar to that of donors without steatosis at baseline.⁵ Though all these studies were limited by small sample size, five out of six studies in this meta-analysis were from the Asian countries.

Thus, we feel that few lines regarding **management of DS** may also be added to this guideline.

ABBREVIATED NAMES

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CONFLICTS OF INTEREST

None.

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