Reply to: "Combined heart-liver transplantation for congestive hepatopathy with bridging fibrosis: Is it warranted?"

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Journal Pre-proof

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PII: S2589-5559(21)00103-8

DOI: https://doi.org/10.1016/j.jhepr.2021.100327

Reference: JHEPR 100327

To appear in: *JHEP Reports*

Received Date: 6 May 2021

Revised Date: 22 June 2021

Accepted Date: 28 June 2021

Please cite this article as: Allaire M, Sessa A, Cadranel JF, Lebray P, Combined Heart-Liver Transplantation: A need to identify the good candidates beyond liver fibrosis classification ?, *JHEP Reports* (2021), doi: https://doi.org/10.1016/j.jhepr.2021.100327.

Combined Heart-Liver Transplantation: A need to identify the good candidates beyond liver fibrosis classification ?

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Acknowledgement : Non

Conflict of interests' statement: nothing to declare regarding this work

Financial support: none

Number of tables: 0

Number of figures: 1

Electronic word count: 626 words excluding references

Author contributions:
Study concept and design: Allaire, Cadranel, Lebray and Sessa
Drafting of the manuscript: Allaire, Cadranel, Lebray and Sessa
Final approval of the version to be submitted : Allaire, Cadranel, Lebray and Sessa

Abbreviations:

CLHT: combined liver heart transplant

HCC: hepatocellular carcinoma

HT: heart transplant

We thank Izzy et al. (1) for their interest in our article about the management of congestive hepatopathy (2), but also for their participation in improving the knowledge of this disease by identifying diabetes as an independent predictive factor of graft failure and mortality after combined heart-liver transplantation (CHLT) (3). We fully agree that careful selection of the patients with congestive hepatopathy who will benefit from CHLT is mandatory in the era of organ shortage and with regard to the survival observed after such a procedure. However, data are sparse as CHLT represent less than 10% of combined transplantation, 20-30 cases in the USA per year and less than 10 per year in France. Therefore, the identification of good candidates remains a major issue. In most cases, CHLT in the United States has been performed in patients with familial amyloid neuropathy or congenital heart diseases, dealing with a younger population of patients. In these series, indications for CHLT were mainly based on indirect criteria of cirrhosis with explants finding a low proportion of true cirrhosis, which can contribute to the good outcome of these patients (4). Data are missing regarding patients with mixed liver lesions such as acute or chronic congestive lesions in combination with chronic advanced liver disease linked to metabolic syndrome, alcohol, or chronic viral hepatitis, a specific population of patients that constitute the majority of our French cohort (5). They present an increased risk of liver complications following heart transplantation (HT) alone, justifying the consideration of CHLT in case of cirrhosis or even bridging fibrosis (especially for those with liver failure), and hepatocellular carcinoma (HCC).

Itself, the term “bridging cirrhosis” needs furthers discussion as accurate evaluation for fibrosis stage remains challenging in the setting of end-stage heart failure. The diagnostic performance of non-invasive tests remains low, and individual variability exists when performing a liver biopsy. Moreover, a high risk of complications including bleeding must be considered while indicating biopsy when no specific anatomopathological classification exists with low diagnostic performance. However, specific attention to periportal or perisinusoidal fibrosis appears important to prompt an investigation for the presence of another cause of liver disease which may favor fibrosis progression through cirrhosis and its related complications.

Even when the accurate classification of liver fibrosis in HT candidates is available, at least three questions persist:

- Challenging reports showing regression of fibrosis was noticed after HT alone, one for Fontan associated liver disease and the other for idiopathic dilated cardiomyopathy (6,7),

- To date, no study is available about the outcome of HT for patients with real cirrhosis, while survival results are similar between CHLT and single HT.

- Further analysis of the influence of preoperative acute liver failure (Delta MELD) and postoperative risk factors of fibrosis progression and HCC is needed to identify the patients who will benefit from CHLT or HT alone. Interestingly, MELD score and ascites were independently associated with low postoperative survival in patients who underwent single HT and who did not present cirrhosis. In this series, dilated and ischemic cardiopathies were the main indication for HT (5).

Consequently, decision-making in the context of F3 or even F3-F4 fibrosis, while respecting a definition based on histological criteria, can only be done in the context of a multi-collegial and multidisciplinary decision considering the presence of coexisting acute and chronic liver disease and risk factors of fibrosis liver progression.

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