

Dr. Sami Akbulut

Editor of World Journal of Transplantation

Manuscript NO 89702: “Association of donor hepatectomy time with liver transplantation outcomes: a multicenter retrospective study”

Thank you for reviewing the above referenced manuscript. The comments were useful and the manuscript was amended accordingly. All changes made are highlighted in yellow in the revised version of the manuscript. Please see below the answers for all queries.

Do not hesitate to contact us if you require any further information.

Geisiane Custódio

Reviewer Comments:

Comment 1: This is an interesting paper addressing a relatively novel question, that of the donor hepatectomy time in donors after brain death. The fact that there is no positive correlation, does not diminish the importance of the finding. Could the authors discuss the fact that there is relevant data that we have from donors after cardiac death, where the warm ischemia time is critical and where the differences may be more obvious given that there is a wider margin in the time period.

Answer 1: This is a very interesting point. Liver grafts recovered from donors after cardiac death undergo distinct ischemic insults during procurement, exhibiting

differences in nature and severity of injury. Using the Eurotransplant Registry data, Jochmans et al. reported that the impact of donor hepatectomy time is more pronounced in livers from donors after cardiac death than in those after brain death (1). In donors after cardiac death, cold preservation follows a prolonged period of warm ischemia during treatment withdrawal, progression to asystole, and hepatectomy itself, making these grafts more vulnerable to insults. Recently, a retrospective study using the United States national data including 3,810 liver transplants from donors after cardiac death demonstrated that prolonged donor hepatectomy time significantly increased the risk of 1-year graft loss and patient mortality. This study showed that prolonged donor hepatectomy time, defined as ≥ 42 min, is a significant risk factor impacting short-term outcomes, along with the receptor age and MELD score (2). We believe that the exceptionally short median donor hepatectomy time of < 29 minutes in our study, along with the absence of prolonged warm ischemia typical of donors after cardiac death, explains the lack of association between donor hepatectomy time and outcomes in our cohort of brain-dead donors.

These comments were included in the Discussion section (paragraph 3).

References were also updated, to include the following:

- 1- I J, S F, I T, U S, J P. The Impact of Hepatectomy Time of the Liver Graft on Post-transplant Outcome: A Eurotransplant Cohort Study. *Annals of surgery*. 2019;269(4).
- 2- Y B, A K, J K, T T, M F, A G, et al. Impact of the donor hepatectomy time on short-term outcomes in liver transplantation using donation after circulatory death: A review of the US national registry. *Clinical transplantation*. 2022;36(9).

Editorial Office Comments:

Comment 1: Language polishing requirements for revised manuscripts submitted by authors who are non-native speakers of English. As the revision process results in changes to the content of the manuscript, language problems may exist in the revised manuscript. Thus, it is necessary to perform further language polishing that will ensure all grammatical, syntactical, formatting and other related errors be resolved, so that the revised manuscript will meet the publication requirement (Grade A). Authors are requested to send their revised manuscript to a professional English language editing company or a native English-speaking expert to polish the manuscript further. When the authors submit the subsequent polished manuscript to us, they must provide a new language certificate along with the manuscript.

Answer 1: As requested, we carried out a review process with a professional English editing company. The certificate is attached.