

LETTER TO THE EDITORS

Response to Gastaca

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Dear Sir,

Thank you very much for your comment on our manuscript 'Temporary intraoperative porto-caval shunt: useless or beneficial in piggy back liver transplantation?'. We would like to take the opportunity to respond to the valuable comments of Gastaca.

Gastaca pointed out that portal blood flow and pressure prior to hepatectomy should be considered as confounders when studying the effects of a temporary porto-caval shunt. Unfortunately, this information was not available in our prospectively conducted liver transplantation database. Moreover, information on portal blood flow and pressure prior to liver transplantation cannot be recruited retrospectively and therefore was not content of the present study. We certainly agree with Gastaca that this information would be of tremendous relevance to prospectively identify subgroups of patients who will have the highest benefit from an intraoperative shunt application. We would speculate that patients with low portal pressure and high portal blood flow prior to transplantation would profit most from temporary shunt usage. In this subgroup, patients are not used to portal venous stasis with consecutive intestinal congestion and have less porto-systemic collaterals. Nonetheless, we respectfully submit that investigating all consecutive patients transplanted with or without a porto-caval shunt at our institution in the period from 1997 to 2010 revealed a significant survival benefit in multivariate analysis. Potential confounders associated with poor graft survival, i.e., steatosis, cold ischemia time, donor age,

etc., have been included in univariate and multivariate analysis.

Based on our manuscript, a prospective multicenter randomized trial within Germany will be initiated. In this trial, portal pressure and blood flow as well as shunt time will be considered as stratification criteria. This prospective study will address the valuable comments of Gastaca and potentially clarify whether the critical 90-min threshold for the development of organ injury owing to interruption of portal flow can be directly transferred into the clinical arena. Most important, liver tissue will be collected for molecular analysis further evaluating the underlying mechanisms for the amazingly positive results of intraoperative shunt application on liver injury and organ survival after liver transplantation.

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Conflicts of interest

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