

Dear Editor and Reviewers

Thank you for the opportunity of answering your questions about the manuscript. I hope to have addressed all of your concerns.

Below are the answers according to each reviewer's questions.

Reviewer 1: Questions

Congratulations to the authors for a thorough and interesting review for the field of pediatric transplantation. The manuscript is well written and does a good job keeping the topic concise and to the point. I would like to know more about the use of percutaneous transhepatic draining in the setting of non dilated ducts since our institution does not use this technique in that setting.

Answers:

Thank you for your question. Most of the procedures are performed in children recipients of partial grafts, and usually without bile duct dilatation. The early indication, based on a high degree of clinical suspicion is what we think is responsible for a high success rate. To perform PTC in a patient without significant bile duct dilatation we use fluoroscopic control and in some cases US guidance. A paragraph was added to the manuscript in the treatment section.

Reviewer 2: Questions

Congratulations to the authors for this review. It is dealing with an interesting and important topic in the field of pediatric transplantation, especially under the light of increasing necessity for LDLT or Split LTX. The manuscript is well written. I have just a few comments: 1.) Can the authors tell more about their experience with PTC and PBI? I am wondering who to reach such successful rates, since (like the author also mention) the biliary dilatation is only mild and also late in liver-transplanted-patients BS. In my experience PBI and PTC is very difficult in almost not dilated biliary tracts. 2.) As reason for ITBL I am missing the hepatopulmonary syndrome. 3.) BE vs DD: 3.1) I think authors should add more details to the discussion about the decision for bileoenteric or duct-to-duct anastomosis in a patient, especially the individual

aspects in different diseases. 3.2) I disagree with the statement, that best results has the BE anastomosis. This is disease and centre depending. In my experience DD anastomosis has a higher risk for AS but stenosis is much easier and safer to treat. Of course this depends on the quality of ERC which is available. To evaluate which technique is the better choice it also important to look for long term complications in BE anastomosis patients, for example incidence of cholangitis. The cited work of Tanaka H et al (37) and conclusions from this work should not be mentioned without mentioning that they did(or could) not apply ERC in thier DD-anastomosis patients! 4.) In Figure 2 I feel that one could get impression that testing for BS is necessary not until jaundice, fever or acholic stools develops, but like the authors also mentioned, EARLY treatment is important. Maybe layout of the figure could be changed the way, that early symptoms are shown more concisely. In conclusion I think the manuscript is of great interest for the readers. Quality of the manuscript is good, but minor revisions have to be done. Especially the generalized statements about superiority of BE anastomosis have to be revised.

Answers:

1. Thank you for your question. Most of the procedures are performed in children recipients of partial grafts, and usually without bile duct dilatation. The early indication, based on a high degree of clinical suspicion is what we think is responsible for a high success rate. To perform PTC in a patient without significant bile duct dilatation we use fluoroscopic control and in some cases US guidance. A paragraph was added to the manuscript in the treatment section.
2. A higher rate of biliary complications, particularly anastomotic, was reported in patients transplanted for hepatopulmonary syndrome. A paragraph was included in the text: "Tissue hypoxia, as presented in patients with hepatopulmonary syndrome, at level of the anastomosis, can increase the rate of biliary complications following liver transplantation". (Gupta et al. AJT 2010).
3. Aspects of D-D anastomosis decision were included in the text. Also, the sentence about the superiority of BE was removed. The citation on the Tanaka work was clarified about the use of ERCP.
4. Figure 4 was modified in order to clarify that presence of any of the symptoms should initiate diagnostic workup for biliary strictures.

REFERENCES

Gupta S, Castel H, Rao RV, Picard M, Lilly L, Faughnan ME, Pomier-Layrargues G. Improved survival after liver transplantation in patients with hepatopulmonary syndrome. *AJT* 2010;10:354-363. [PMID:19775311 DOI: 10.1111/ j.1600-6143.2009.02822.x]

Sincerely,

Dr Flavia Feier