

Peer Review File

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Point-to-point responses to the Reviewer comments

Comment 1: Your conclusion paragraph is written in a way that suggests the evidence is clear on how to management SPSS - reality is that there is very limited literature on the management and impact of SPSS as it relates to the size and flow at that time of transplant. There is in fact no clear consensus in the in the transplant community on the "best approach" to manage SPSS peri-transplant. The method of managing SPSS (embolization w/ BRTO or TIPS, surgical ligation, renal vein ligation) continues to remain specific to each institution.

Reply 1: Reply: We do agree with your comment. There is no clear consensus on the "best approach" to manage SPSS in the peri-transplant period, so we modified the content of the discussion section.

Changes in the text: Page 8, line 3~10.

Comment 2: In the cases could you clarify the nature of the occluded portal vein, was it chronic or acute thrombosis; history sounds acute but should clarify? Each relate to very different transplant outcomes.

Reply2: Both of two patients had old portal vein thrombosis, which was successfully removed intraoperatively. We added the picture of case2 during operation, but unfortunately the picture of case1 was not stored.

Changes in the text: We added the picture in figure 3.

Comment 3: Case 1 (ligated, classified as good evolution) developed dyskinesia due to osmotic demyelination. To report a case with neurological complications to argue good results is not coherent.

Reply 3: We agree with your comment, therefore we will not describe neurological complications in case 1.

Changes in the text: Page 3, line 11 ~ Page 4, line 3.

Comment 4: Previous episodes of HE in Case 1 and 2 should be described. Did the patients had recurrent or persistent HE? Which grade was the worst one?

Reply 4: Case 1 and 2 had recurrent hepatic encephalopathy (Grade III) and progressive aggravation in case 2.

Changes in the text: Page 3, line 12 and Page 4, line 5, line 10.

Comment 5: Graft failure is attributed to SPSS and a stole phenomenon. However, Case 2 was transplanted due to hepatocellular carcinoma (HCC). The state of HCC should be specified. In the images provided a multifocal HCC can be observed: This case would be rejected as a candidate for liver transplant in many tertiary hospitals. To establish the reason for fatal evolution with SPSS is not possible.

Reply 5: Case2 would also be rejected as a candidate for liver transplant in our hospital, Standard orthotopic LT was performed because of his progressively aggravated HE. That was a salvage

operation.

Comment 6: Conclusions are too categorical for just two cases. Although authors provide updated bibliography, they also should mention other works, as Rodriguez et al (Rodriguez EA, Perez R, Zhang N, et al. Liver Transpl 2020; 26: 693–701.) and Saks et al. (Saks K, Jensen KK, McLouth J, et al. Hepatol Commun 2018; 2: 437–444), with different results.

Reply 6: We do agree with your comment. There is no clear consensus on the "best approach" to manage SPSS in the peri-transplant period. We have revised the conclusion part.

Changes in the text: Page 8, line 3~10.

Comment 7: This is well written. It focuses on a very specific group of intrahepatic portohepatic shunts identified antenatally or in early life. It is retrospective. The finding of early closure regardless of size or other imaging features in agreement with previous publications. The numbers are significant and well documented. My only contention is that the article's message that they will all close may not be correct. I would prefer a conclusion that says management should be expectant of spontaneous closure. Follow up with ultrasound to closure/2 years of age should be performed. A small minority may persist and should be investigated further after this age threshold.

Reply 7: We agree with your comment, it is inappropriate to ligate all SPSS during operation, some of which are good for the prognosis of patients and can be treated through other treatment methods after operation. Follow up with ultrasound or CT is necessary.

Changes in the text: Page 8, line 3~10.