

Answering Reviewers:

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**Reviewer** (Comments to the Author (Required)):

Authors: Runchen Miao et al.

Title: Devascularization of the Superior Mesenteric Vein without Reconstruction during Surgery for Retroperitoneal Liposarcoma –A Case Report and Review of Literature(Manuscript NO: 38699)

Dear editor:

Because of the amendments for the manuscript, the Number of lines has been changed. We have restated that in our response. Your requests for the manuscript have been corrected and all the modifications have been highlighted. Moreover, we discussed to add one author (The fourth author). Sorry for the inconvenience. Here is our response to the review.

Reviewer 1:

1) It is not clear whether the authors performed preoperative cytology by FNA or a proper histologic evaluation was carried out through biopsy.

*Answer:*

*Thanks for your kindly suggestions. We've discussed the problem in the manuscript (line 182-183). However, the FNA is extramural hospital diagnosis. There is no picture information except for inspection report. Postoperative pathological findings the diagnosis of well-differentiated liposarcoma, which was showed Figure 5.*

2). The Authors stated that in this case, a preoperative visualization of two SMV collaterals was achieved during the pre-operative workup. This point should be stressed, and the Authors should provide precise preoperative criteria for performing a SMV resection without reconstruction (what type of diagnostic workup should be carried out ?).

*Answer:*

*Thanks for your kindly suggestions. We've add more discussion to provide precise preoperative criteria for performing a SMV resection without reconstruction. In the line 212-222: Because of the complexity of the vessel invasion, it was impossible to perform the retroperitoneal tumor dissection and to keep vessels intact. Ligation of the superior mesenteric vein is necessary. However, according to the imaging findings, we did not have a proper sized vein graft for the tumor invaded SMV at this point, and we were reluctant to use a synthetic graft because of the potential risk of graft infection and thrombosis. The SMV is the most important vein in abdomen. The superior mesenteric vein collects the blood from the abdominal organs and forms portal vein together with the splenic veins. It carries abundant nutrients into the liver, and serving as a metabolic energy source for the liver itself. We noticed that the patient's liver function did not show significant damage. This is in contradiction with the expected result of long-term compression of the SMV.*

3). The Authors reported a very rare anatomical variation of the so called Henle's trunk, with a CMV connected to the inferior pancreatic trunk (whereas usually the Henle's trunk is constituted by the CMV, the right gastro-epiploic vein and the antero-gradе-superior pancreatic). Could the Authors provide a brief discussion on the normal anatomy and the variations of the Henle's trunk ?

*Answer:*

*Thanks for your kindly suggestions. We've add more discussion to answer your questions. This discussion is now in line 331-340: In the case, the CMV was retained*

*and communicated with the branch of the inferior pancreatic vein to ensure venous blood stream come from abdominal organs. There are many anatomic variation for the CMV. In recent years, two types of variation were reported: 1) The CMV returns directly to the SMV; 2) The CMV and the right and left right colon veins return to the Henle's trunk together. The confluence of the middle colonic vein with the inferior pancreatic duodenal vein has not been reported except for our study. This may also be due to the anatomical variation formed by long-term tumor compression.*

4). The Authors stated that the SMV and the PV must be resected during pancreaticoduodenectomy. This statement could create confusion in the readers, as vein resection is necessary only when the tumor invades the vein, in order to obtain R0 resections.

*Answer:*

*Thanks for your kindly suggestions. We have corrected the mistake. This correction is now in line 289-290.*

5). as the take home message of the manuscript is very strong, Authors should provide a clear statement on when a SMV resection without any reconstruction can be feasible and when (and probably why) this technique should be preferred over a prosthetic reconstruction or a vein transplantation.

*Answer:*

*Thanks for your kindly suggestions. We've add more discussion to answer your questions. This discussion is now in line 306-314: However, the SMV resection without any reconstruction is suitable for a special situation that another vessel can functionally replace the superior mesenteric vein. In the case, we had found collateral circulation by preoperative vascular reconstruction. This is the most sensitive method of detecting the formation of collateral circulation. However, its false negative rate (FNR) has not been seen in related studies. In addition, in this case, the patient has not been performed a vein graft because we considered the possibility of*

*postoperative venous thrombosis. However, vein transplantation is still very necessary for patients without the observation of collateral circulation.*

Reviewer 2:

None