

Dear Editors,

Thank you for reviewing our manuscript and for the reviewers' comments concerning our manuscript entitled "Recurrent pyogenic liver abscess after pancreatoduodenectomy caused by common hepatic artery injury in atypical celiac axis anatomy" (Manuscript NO.: 67212, Case Report). All the comments were valuable and very helpful for revising and improving our paper. We have revised the manuscript according to the comments and suggestions. Please see the point by point responses to the comments as listed below.

Responses to Reviewer #1:

Reviewer #1 (Reviewer Comments to the Author):

This is an interesting case report. This patient developed recurrent intrahepatic abscesses, likely cholangitic abscesses, following PD. This is rare presentation and quality of write-up is good. However, I'm not sure whether this complication can be directly linked to the abnormal celiac anatomy and vascular injury described in this article. Is it possible that it's caused by recurrent ascending cholangitis? Authors can shed more light on these issues and include relevant references. Authors may provide an MR cholangiogram picture to get a better understanding of the patient's ductal anatomy. Please also provide a pus culture and antibiotic sensitivity result of the abscess. The case presentation may be written more succinctly. Multiple headings seem to be unnecessary. Investigations may be provided in a table and only important findings should be mentioned in the text. Finally, some grammar and language policing is needed.

Response: Thank you for your questions and advises. First, we also believe that there are many possible reasons to cause recurrent cholangitis, so we have added more discussion about that in discussion section. Next, we have provided an MR cholangiogram picture to get a better understanding of the patient's ductal anatomy in Figure 3B. In addition, we have provided more information about pus culture and antibiotic sensitivity results of the abscess. Subsequently, we have revised the manuscript to present more succinctly. Finally, we have revised the grammar errors in the revised manuscript.

Responses to Reviewer #2:

Reviewer #2 (Reviewer Comments to the Author):

1. Remove figure 4 histology image as has no bearing in the report 2. Did authors rule out technical issues with HJ i.e. stricture etc as a cause of liver abscess. Did you rule out diverticular disease? 3. What was the bacteriology and was patient treated by drainage procedure for abscess - all the time? i.e did you resort to surgery due to inadequate medical/non-operative management? 4. Thanks

Response: Thanks for these useful suggestions. First, we have added the related description for figure 4, then we have considered the other reasons that may cause liver abscess and added the discussion in the discussion section. Additionally, we have added the picture of MR cholangiogram and the patient's ductal anatomy don't contain diverticular disease or stricture(Figure 3B). In the case, the bacteriology of patient was escherichia coli and the patient was treated by drainage procedure for abscess with four times, each remission of symptoms lasts for two to four months. However, the standard anti-inflammatory and drainage procedures could not cure the patient's disease, so the patient was finally treated with surgery, and finally achieved good results.

Responses to Reviewer #3:

Reviewer #3 (Reviewer Comments to the Author):

Main comments: (1) Anatomic variations are well-known pitfalls in pancreatic surgery. An evaluation of the anatomic conditions by preoperative imaging is standard. (2) From the text and from the figures it is not entirely clear, what kind of injury was inflicted on the CHA. (3) Figure legend 2 should describe the blood supply to the liver in this patient in more detail.

Further comments: (4) Abstract/Case Summary, third sentence: "percutaneous transhepaticcholangial drainage" -> ...transhepatic cholangial... (5) Physical examination: "his heart was 121 bpm, his respiratory was 24 breaths/min" -> heart rate, respiratory rate. (6) Conclusion, first sentence (and Abstract/Case Summary, last sentence): "In this case, the preoperative computed tomography scan and examination of anatomical variations played a pivotal role in avoiding arterial injuries" - did you mean "examination of anatomical variations would have played a pivotal role"? (7) Figure 2: Along with the other

abbreviations, "LIPA" should also be explained in the caption (left inferior phrenic artery). (8) In spite of editing, there are linguistic and stylistic problems, notably in the abstract (e.g., "He have undergone PD", "postoperative liver abscess have recurred"), but also within the rest of the text (e.g., "the patient reappeared the fever", "A physical examination of the abdomen revealed that patient's right abdominal muscle was tension with persistent tenderness", "the morality rate of hepatic abscess have reduced to 5%-30%"). Perhaps changes were made after the editing process or the authors did not take up all the suggestions. (9) Informed consent statement: "Informed written consent was obtained from the patient" -> ...was obtained... (10) Reference 15: Within the discussion, this reference is cited as "Edoardo et al."; it should be Virgilio et al. (consistent with the reference list; Edoardo is the author's first name).

Response: Thanks for these useful suggestions. First, the CHA of patient was mistakenly ligated and transected during the first pancreaticoduodenectomy in local hospital. Next, we have added the description of the the blood supply to the liver in Figure legend 2. Subsequently, we have carefully revised the manuscript according to your suggestions. Eventually, thanks again.

Response to reviewer: (1) In the abstract, the authors write: "Here, we present a case that recurrent pyogenic liver abscess after PD is caused by right hepatic artery injury in atypical celiac axis anatomy"; however, in their reply to the reviewer and in the text of the manuscript they describe an injury of the common hepatic artery. This is confusing for the reader.

Response: Thanks for this advice. We have corrected the word from "right" to "common" in our revised manuscript.

(2) Laboratory examinations, last sentence: "Imlpenem" -> Imipenem.

Response: We have revised this spelling mistake in our revised manuscript. (3) Imaging examinations (last sentence) and figure legend 3: "picure" -> picture. Response: We have revised this spelling mistake in our revised manuscript.

(3) Discussion, last sentence: "PTCD was performed to drainage pus and bile" -> PTCD was performed to drain pus and bile.

Response: We have revised this spelling mistake in our revised manuscript.

(4) Figure legend 2: "the CHA orginated from the SMA" -> the CHA originated from the SMA.

Response: We have revised this spelling mistake in our revised manuscript.