

Peer Review File

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Reviewer A

We have reviewed "Hepatobiliary Anastomotic Leakage: A Narrative Review of Definitions, Grading Systems, and Consequences of Leaks". The findings on the most important postoperative complication in highly advanced hepatobiliary-pancreatic surgery, anastomotic leakage (PLPF/ BL), are briefly summarised in a narrative review, which is very practical.

However, due to some problems, please revisit this paper again.

Q1. With regard to POPF and BL, 1. increased mortality, 2. increased morbidity, 3. prolonged length of stay, 4. increased reoperation rates, 5. increased readmission rates, 6. Increased patient costs, 7. Increased need for intensive care, and 8. Secondary complications are briefly summarized.

However, there is no mention of risk factors and predictors for the development of AL, which is the most important topic. The finding of risk and predictive factors in AL has been a major part of previous reports and is an essential part of the review. I think additional descriptions are needed.

Reply 1: Thank you very much for this feedback. We absolutely agree, and because the literature is about risk factors and predictors for the development of AL is so vast, actually decided during the manuscript writing process to have a separate manuscript dedicated to this topic. We certainly acknowledge that adding a section about this would strengthen the current paper, and so have added sections about risk factors for both POPF (lines 103-121) and BL (lines 221-237). In order to maintain focus on the core topics of the manuscript, we have provided a synthesis/summary of the main risk factors/predictors of POPF and BL.

Changes in text: Lines 103-121; Lines 221-237

Q.2 Postoperative haemorrhage and sepsis have been selected as significant secondary complications in POPF. And for BL, liver failure is selected as a serious secondary complication.

For POPF, delayed gastric emptying (DGE) is considered more important than sepsis. This is because POPF is directly involved in the development of DGE and DGE is more frequently encountered in daily practice. In addition, DGE has a well-established ISGPS definition and has been widely reported under uniform diagnostic criteria.

Similarly, is it correct to select liver failure as a secondary complication in BL? Patients who develop liver failure often undergo major hepatic resection (high hepatic resection volume and more complex surgical technique) or hepatic resection with bile duct resection, and are therefore potentially at higher risk of developing a BL. Therefore, it is natural to assume that BL do not cause liver failure, but rather that surgery with a high risk of BL is performed in cases of post-operative liver failure. Shouldn't intra-abdominal abscess or post-operative

haemorrhage therefore be the secondary complication of choice?

Thank you for this feedback. We included postoperative hemorrhage and sepsis as secondary complications of POPF, and liver failure as a secondary complication of BL, as these complications came up repeatedly when doing our literature review, and we thus felt it necessary to present this evidence. In the case of bile leaks, we did find literature supporting an interrelationship between bile leak and liver failure, and given that it had been highlighted by other authors/publications, felt it would not be appropriate to exclude from this discussion. Taking your feedback into consideration, we have incorporated sections on DGE into Table 5, and sections on intra-abdominal abscess and post-operative haemorrhage into Table 6.

Changes in text: Additional section on DGE in Table 5; Additional sections on intra-abdominal abscess and post-operative haemorrhage in Table 6.

Q3. Regarding BL, is it appropriate to include bile leaks after hepatic resection as AL? Isn't it only the hepaticojejunostomy after pancreaticoduodenectomy or hepatic resection with bile duct resection that should be treated as a AL? It seems that most of the references cited in this study refer to bile leaks after hepatic resection. Please provide a statement in this regard.

Thank you for this note. Within this narrative review, we aimed to conduct a wide scope of the literature, so as to provide a useful picture of bile leaks for both the research and clinical community. Since there are indeed many publications that refer to bile leaks after hepatic resection, and we were considering bile leak in a broad sense, we felt it important to include these publications, keeping the scope broad and focused primarily on the devastating outcomes/impacts of leaks.

If we have not fully addressed your comment and you could clarify further, it would be greatly appreciated.

Change in text: N/A

Reviewer B

1. You refer to "study" with more than one literature citation. Please check and revise.

- *"For example, prior to the introduction of the commonly agreed on system, a leak could be graded based on many parameters, such as daily output and duration of the fistula, with a 2005 study identifying a striking 26 definitions of POPF in the literature (26,27)."*

Thank you very much for taking note of this. This section and its references have been reviewed, and revised accordingly to include the single 2005 study being referred to here.

2. Please indicate where to cite Tables 1, 3, and 5 in the main text.

Many thanks for noting this. Table 1 is cited on line 62 of the manuscript; Table 3 on line 172; and Table 5 on line 260.

3. Abbreviation should be spelled out the first time it is used in the Abstract/Body Text/Table.

Thank you for bringing this to our attention. We did aim to spell out all abbreviations the first time they are used, including a reference table (Table 1) that readers are presented with at the beginning of the narrative review. If we have missed any abbreviations and you could kindly point us to their location so we can revise accordingly, it would be greatly appreciated.

4. The author's name cited in text should be consistent with the reference.
5. The search terms listed in Table 1 must match with that in the abstract and the main text.
6. Please indicate where to cite Figure S1 in the main text.

Thank you for bringing these concerns to my attention. I've attached an updated version of the manuscript - please let me know if you notice anything else that still requires revision.