

Peer Review File

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Reviewer 1

Comments to the authors:

The current review report about the role of “Laparoscopic liver surgery for colorectal liver metastases- Review of the recent literature”.

It aims to provide a short general overview of current treatment strategies for colorectal liver metastases (CRLM) with a focus on minimal-invasive liver surgery and to summarize the contemporary literature on laparoscopic resection of these metastases. Along with a general view on short-term results the focus will be on long-term, oncologically relevant outcomes based on retrospective data using propensity score adjustments as well as on recently published prospective randomized trials. The clinical focus and question of this review- the present overview on the long-term, oncologically outcomes undergoing minimal-invasive liver surgery- were clear, precise and worth investigating. The structure of the manuscript is clear and well written, the relevant and current literature to this topic is illustrated and in the context discussed.

However, with regard to synchronous bilateral liver metastases diseases the different treatment options to achieve resection (ALPPS, PVE etc...) should be discussed in more detail. In addition, I would recommend to insert a further text part with the current role of “Robotic liver surgery” in treatment of colorectal liver metastases. Nevertheless, the current review could give some new aspects and overview of the current “retrospective” and “prospective” studies dealing with minimal-invasive liver surgery for CRLM.

Reply Reviewer 1:

We are grateful for the suggestions raised and implemented your feedback in the new version of the manuscript.

With regard to the different surgical strategies we added in the chapter “Colorectal cancer - multimodal treatment (focus on liver metastases and curative approach)” two paragraphs addressing two-stage hepatectomy, ALPPS, PVE and liver transplantation as curative treatment approaches. (Page 7, line 117 - 125; page 7/8, line 128 -141) Furthermore, we wrote one additional chapter addressing laparoscopic TSH and laparoscopic ALPPS. (Page 20, line 376 – 389)

With regard to robotic liver surgery we included a short chapter addressing alternative minimally invasive local CLRM treatments. In order not to go beyond the scope of this review we just mentioned robotic surgery and percutaneous approaches as alternative MIS player which will have an important role in the future. (Page 20/21, line 390 – 406)

Reviewer 2**Comments to the authors:**

This is a nice review on laparoscopic liver surgery. I would add a short paragraph on liver augmentation techniques and put them in context with lap liver surgery. Otherwise the manuscript seems ready for publication. Nice effort on the literature review and manuscript tables. Thank you for your effort.

Reply Reviewer 2:

Thank you for appreciating our manuscript.

In order to address liver augmentation techniques we wrote two additional paragraphs in the chapter “Colorectal cancer - multimodal treatment (focus on liver metastases and curative approach)” (Page 7, line 117 - 125; page 7/8, line 128 -137) as well as a separate chapter about laparoscopic TSH and laparoscopic ALPPS. (Page 20, line 376 – 389)