

Aachen October 2020

Review of manuscript “Laparoscopic hepatectomy reduces postoperative complications and hospital stay in overweight and obese patients”

Dear Editor-in-Chief,

Thank you for offering us the possibility to revise our clinical research paper entitled “*Laparoscopic hepatectomy reduces postoperative complications and hospital stay in overweight and obese patients*” with possible publication in World Journal of Gastrointestinal Surgery. Please convey our thanks for each reviewer for their work, and find attached the revised version and our *point-by-point* responses to each reviewer’s comments. We have adjusted the tables and figure and marked all changes in the manuscript bold and underlined.

REVIEWER #1:

Comment #1:

Does over-weight group patients included the obesity patients?

Our reply.

Yes, the obesity cohort is included in the overweight group.

Comment #2:

Please make the results of the basic profile of obesity group briefly and can be the same as over-weight group. It is better to code Table 2 early.

Our reply.

Basic profile of the obesity group in now included in Table 1 together with the overweight group. Analysis of the obesity group is shown in Table 3 for perioperative data only. We now hope to meet the requirements to your approval.

Comment #3:

The cost of intra-operation free of LH and OH and how about the total free of two group?

Our reply.

The estimated overall cost are shown in table 2 and 3 for LH and OH. The estimated costs refer to both intraoperative costs and costs of the hospital stay. The intraoperative costs were estimated to be \$780 higher for the minimally invasive hepatectomy.

REVIEWER #2:**Comment #1:**

The authors investigated that postoperative complications and hospital stay in laparoscopic hepatectomy with obesity. As a result, laparoscopic hepatectomy reduces complication. To my regret, I would not recommend it for acceptance with several points. Major points the authors provide data on extremely few bile leakage in the Laparoscopic hepatectomy group, but there are too many differences compared with the open hepatectomy group. The author needs to consider deeply why such a result was obtained.

Our reply.

In our study we indeed observed significantly few bile leakages after laparoscopic hepatectomy compared to open hepatectomy. Of the overweight cohort 1.5% and of the obese cohort 3.7% developed a postoperative bile leakage after LH. However, other working groups have already reported comparable results in their cohorts. One of the largest cohorts published so far is from Mohkam et al. who analyzed 778 LH with 34.3% major resections (1). Post-operative bile leaks were observed with an incidence of 4.0%, which is in line with our results given the limited number of patients in our study. Concerning the differences between open and laparoscopic group we found significantly increased CCI in the open group. This is a result that the randomized Oslo Comet Trial by Fretland et al. could also demonstrate (2). In that trial significantly fewer complications were observed after laparoscopic resection of CRLM. In our opinion also this result is comparable to the previously published studies. Our study is certainly underpowered to reach a definitive conclusion for LH in overweight and obese patients, which we stated in the discussion part.

REVIEWER #3:**No Comment*****Our reply.***

We thank you for your review and appreciate the overall positive rating of our paper.

1. Mohkam K, Fuks D, Vibert E, Nomi T, Cauchy F, Kawaguchi Y, et al. External Validation and Optimization of the French Association of Hepatopancreatobiliary Surgery and Transplantation's Score to Predict Severe Postoperative Biliary Leakage after Open or Laparoscopic Liver Resection. *J Am Coll Surg.* 2018;226(6):1137-46.
2. Fretland Å A, Dagenborg VJ, Bjørnelv GMW, Kazaryan AM, Kristiansen R, Fagerland MW, et al. Laparoscopic Versus Open Resection for Colorectal Liver Metastases: The OSLO-COMET Randomized Controlled Trial. *Ann Surg.* 2018;267(2):199-207.