

Peer Review File

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Reviewer Comments

Reviewer A

Comment 1: The authors report in detail on the Glissonean approach to laparoscopic hepatectomy, from the modern conception to the surgical technique, but most of these details have already been reported and seem to lack in novelty. The authors need to add more about novelty.

Reply 1: Thank you for this comment. The manuscript is not intended to add any novelty about Glissonean access. It is an invitation to make a review on how to access Glissonean gates.

Comment 2: The authors write in the title, "HOW CAN WE LEARN?", how can we learn surgical techniques other than anatomical understanding in order to perform the excellent surgeries that you do? The authors need to explain that in detail.

Reply 2: This is an interesting remark. This paragraph has been included in the text. "A progressive and carefully monitored learning curve is strongly recommended. The access to liver gates is different considering left or right sides. The left gates (1, 2 and 3) and access to them is probably the best starting point. In this area, left lateral segmentectomies or left hepatectomies are strongly encouraged to be practices before moving to the right side. In the right side, Rouviere's sulcus is probably a next level area from which isolating right posterior pedicle by encircling from gates 5 to 6. In our opinion, and considering current difficulty scoring scales, right anterior sectionectomy and accessing from gates 4 to 5 is the most difficult one and should be considered only for expert laparoscopic liver surgeons".

Comment 3: The Arantius plate is an important structure and landmark in the Glissonean approach on the left side, as reported by Sugioka et al. and Morimoto et al. However, the Arantius plate is not clearly shown in Video 1. Therefore, the authors should show the Arantius plate in the video or explain the authors' concept.

Reply 3: The Arantius plate is very important but the main aim of the manuscript is not to show all landmarks in the liver but to explain access to gates. In the Tokyo guidelines reports several landmarks have been reported (coronary ligaments, falciform ligament, hepatic veins Laennecs sheets,...) but they are not the main aim of this report. Anyway, a brief comment on the Arantius ligament has been included to find Gate 1 location.

Comment 4: In Video 3, the transection of the Glissonean pedicle is presented, but the process of isolating the Glissonean pedicle seems to be important. The authors need to explain the specific techniques for isolating the Glissonean pedicle. In addition, it would be preferable if a video of the process of isolating the Glissonean pedicle could be presented.

Reply 4: We have included "Video legends" so everything is clearly explained. In our

opinion, the transparenchymal process is clearly depicted in this brief clip. We have included a lot more so we do not think it is necessary to add extra time or extra processes.

Comment 5: The authors need to explain the technical importance of the detachment between the Glissonean pedicle and the Laennec's capsule in video 4.

Reply 5: As stated in the previous comment, we have included "Video legends"

Comment 6: Is "Transcisureal" in English? If not, please correct it to English.

Reply 6: Agree. It should be read transfissural. Thanks.

Reviewer B

Comment 1: Thank you for giving me a chance to review this article. I suggest some points to be added for sophisticating this article.

1 Please describe about inner/outer Laennec approach including hepatic vein anatomy.

Reply 1: Thanks for the comment but the inner/outer Laennec's capsule are defined surrounding hepatic veins and this is not the aim of this manuscript.

Comment 2: During Glissonean approach for MI donor hepatectomy, beyond Laennec approach is important not to cause biliary tract injury. Papers from Iwate Medical University and Seoul National University are informative to understand this concept. Please provide another paragraph.

Reply 2: Glissonean approach in MI Donor hepatectomy is not adequate. For this type of procedure hilar or Intraglissonean approach is the only choice. Sorry, do not understand this comment.

Reviewer C

Comment 1: In this review, the authors demonstrated how to carry out the Glissonean approach and control of pedicles for adequate anatomical resections during laparoscopic liver resection. This review indicates "knacks and pitfalls" for performing laparoscopic anatomical liver resection, thus might help HBP surgeons to undergo liver surgery safely.

Reply 1: Thanks. Really appreciate your comments.

Comment 2: To approach Gate 4 and 5, "Cystic plate cholecystectomy" is often useful especially in performing a right anterior sectionectomy, S8 subsegmentectomy and S5 subsegmentectomy. The gallbladder including the cystic plate is pulled to develop a good view of hepatic hilum. It brings the good countertraction to the right anterior Glissonean pedicle.

Reply 2: Thanks. We have included this statement and its reference in the main text.