Author's response to the reviewers' comments

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Title: OVERVIEW OF SINGLE-PORT LAPAROSCOPIC SURGERY FOR COLORECTAL CANCERS: PAST, PRESENT, AND THE FUTURE

Author: Say-June Kim, Byung-Jo Choi, and Sang Chul Lee

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We thank very much the reviewers and the associate editor for their relevant and useful comments. In this document, we quote in **bold face** statements from the reports. Our replies follow in ordinary print. Also, I hope you understand that a few minor improper expressions or grammatical errors were corrected without specific mention.

Reviewer 1

The Authors have carried out an excellent overview of the SILS as it is nowaday and forcasted future scenario of the possible evolution of this laparoscopic technique. I have no comments

→ We really appreciate for your kind remark for our paper. You encouraged us to be the best we could be. We will always be thankful to you for all the confidence you have showed to us.

Reviewer 2

We read with interest the article is well written. However, we have some comments. In the abstract and in the conclusion the authors say that the ultimate form of minimally invasive surgery will be robotic. This assertion is not yet supported by the literature and then could not be used in the manuscript.

→ We really thank for your thoughtful consideration. We removed the (rather subjective) expression of "the ultimate form of minimal invasive surgery", and changed it into the softened expression.

We corrected as the following;

. In the near future, robotic SPLS with natural orifice transluminal endoscopic surgery (NOTES)'s way of specimen extraction seems to be pursued.

On page 3 , line 5: lap colorectal surgery had better long term oncological results…..the two ref 8 &9 are the same trial report in the short and long term ….so the authors have to modify the sentence and remove "some reports".

→ We really appreciate your meticulous and excellent comment concerning the references. According to your comment, we removed the words of "some reports" and modified the sentence.

Following is the corrected sentence.

Furthermore, a randomized clinical trial reported a reduction in tumor relapse following laparoscopic surgery, suggesting long-term oncologic benefits[8].

Page 4 10 line from the bottom: these assertions are not supported by the literature Br J Surg. 2012 Oct;99(10):1353-64; Int J Colorectal Dis. 2013 Jan;28(1):89-101.; Colorectal Dis. 2012 Oct;14(10):e643-54

→ Thank you for your precise comment. We acknowledge that we did not provide evidence-based data. Based on the literature, including meta-analyses, we have corrected the sentences as following.

Other benefits of SPLS over CLS have not determined yet. Until now, a series of comparative studies suggested a number of potential benefits of SPLS, including pain reduction and fastened postoperative recovery [20, 25-27], and others did not[28-31]. The severity and duration of pain after an operation influences postoperative recovery, which is reflected by duration before re-initiation of a diet, return to normal activity, and the length of hospital stay. Therefore, the effect of SPLS on postoperative pain needs to be determined first. Tsimoyiannis et al [25], in a randomized controlled trial comparing outcomes following cholecystectomies either by CLS (n = 20)

or SPLS (n = 20), showed that SPLS more reduced postoperative pain scores. However, prospective, large-scaled clinical trials of the short- and long-term outcomes are essential to determine the precise effects of SPLS.

Page 5 " very difficult or even impossible" It is hard for me to believe that if an intervention is not feasible by laparotomy, it could be feasible and safe with a SPLS approach. However we agree with the authors page 7for the paragraph "spreading out dissection"

→ We have experienced several patients with extensive adhesions who was benefited from SPLS. However, we realized that we should not generalize our specific experience. The following is our correction.

Further, SPLS may be the optimal choice in selected patients with a history of multiple abdominal operations. Such patients are at significantly increased risk of iatrogenic bowel perforation equally during open surgery or CLS. In such a situation, SPLS can be cautiously attempted because a single minimal incision provides more safety and cautious dissection, and the operative field can be expanded from the incision site.

→ Furthermore, SPLS may be the optimal choice in selected patients with a history of multiple abdominal operations. Open or laparoscopic surgery can equally put such patients in the risk of iatrogenic bowel perforation. In these situations, SPLS can be attempted because a single minimal incision provides a safe settlement point from which the dissection can be initiated cautiously.

Page 7 : Gauze application: this point should be clarified. Using gauze during a laparoscopic procedure may create small peritoneal lesions that will generate adhesions.

→ We agree with your opinion. Gauze application can lead to controversy. We thought that more consideration is required for it, therefore, we are determined to remove the paragraph. Thank you for your considerate comment.

Page 8 ; last line the transanal proctectomy have been described by sylla Surg Endosc. 2010 May;24(5):1205-10. And Tuech Eur J Surg Oncol. 2011 Apr;37(4):334-5 And theses two ref must be included.

→ We really thank you for your kind present of references. We included these two references.

Reviewer 3

The authors present a good descriptive summary of the SPLS technique in colorectal surgery which although lacks of results. A thorough review of the literature should be performed reporting the results of this technique compared to conventional ones in order to justify the authors' conclusions. Any comments of the authors not supported by results should be omitted. The English language should be revised.

→ We appreciate for your precise and accurate comments for our paper. The SPLS technique is in the beginning, and until now, no sufficient studies have been accumulated for the validation. We thoroughly searched literature, prioritizing RCTs, recent review articles, and meta-analyses. We have reached the conclusion that the benefits of SPLS requires further validation, except for cosmesis and reduced wound morbidity. A number of new references has been supplemented. All comments which was not supported by literature have been removed, especially in the ‘introduction’ and ‘the benefits of SPLS’ sections. We’ve got lessons from the experiences of more than 1,500 consecutive cases of SPLS. Therefore, we selectively left several statements of our own surgical techniques. Thereafter, intensive English revision was carried out. Thank you.