21st of August 2014

Dear Prof. Su-Xin Gou and reviewers:

We are very glad to be given an opportunity to revise our manuscript for your journal. WJG is a very good and attractive journal, and it is our Chinese pride in the world. We will keep to pay close attention to WJG. According to the suggestions of Pro. Gou and the reviewers, we have made some revisions as follows. In this revised paper, there still may be some flaws and errors, please give us some advices or directly make some revisions. Thank you very much.

Title: The learning curve for hand-assisted laparoscopic D2 radical gastrectomy: only closely related to the operative time of the hand-assisted laparoscopic stage

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Answer to reviewer 2445518

(1) At now, laparoscopic surgery in advanced gastric cancer is not considered as the standard and is under review in Korean randomized trial. 40 of the considered patients were stage 4 gastric cancers (Table2). Considering also that the mean removed lymph node was 17, few patients were recognized as N3b and many stage 4 cancer are supposed to be T very advanced cancer or M1 - Why the authors want to submit so many very advanced cancers (1/3) to mininvasive surgery? Is the frequent insufficient lymphadenectomy due to mininvasive surgery?

Firstly, thanks for your comments. The reasons are as follow: (1) As China is a developing country and the periodic medical examinations have not been universal，most patients with gastric cancer are diagnosed at advanced or late; (2) Laparoscopic-Assisted D2 Radical Gastrectomy is capable of the same degrees of thoroughness and safety as laparotomy for the treatment of advanced gastric cancer. The above view has been accepted by the majority of surgeons. As a minimally invasive surgery， Hand-assisted laparoscopic radical gastrectomy can also achieve the effect of laparotomy for advanced gastric cancer. (3) In this study, the number of dissected lymph nodes was smaller than that in previous studies, which was possible associated with that the other authors used lymphatic tracer during surgery, or our way of harvested lymph nodes from specimen need to be improved. Regarding the standard of the radical surgery, we often communicate with peers outside the hospital via surgery videos, and the thoroughness of our radical surgery has been recognized by peers.

(2) What TNM edition was considered by authors?

The TNM edition and D2 radical gastrectomy were performed according to the "Statute of gastric cancer treatment" (published in Japan).

(3) On page 5 in results from postoperative indicators, authors present a re-surgical drainage of a duodenal leakage. Was it done in open surgery or in laparoscopy? Why didn't the authors insert a radiological TC guided drainage?

The Group A had 1 case of pan-peritonitis caused by duodenal stump leakage that was cured by open surgery and drainage. For limitations of peritonitis caused by Gastrointestinal leak，we usually inset drainage guided with B-ultrasound，we found that Puncture and drainage guided with

B-ultrasound is very skilled , convenient and effective. So, few cases insert a drainage guided by CT.

Answer to reviewer 2929151

(1) In the part of Methods, the patients were divided into 6 groups, with 20 cases in each group, why?

From July 2008 to June 2013, we conducted 120 HALG procedures. Based on the order of the date of the surgery, patients were divided into 6 groups, A~F, with 20 cases in each group averagely. In this study, we made a research of the learning curve for HALG, so, grouping must be according to the date of the surgery, and then, comparing with all the relative indicators of all the groups, we would find the important indicators for learning curve. So, according to the important indicators, the learning curve would be successfully established. In this study, we determined 20 cases in each group according to our clinical experiences and some references.

(2) In the part of Results, the operative time of hand-assisted surgery stage for each group should be shown respectively.

Thanks for your suggestion, we have made some revisions according your suggestion(Page 4).

(3) In the part of Discussion, since the HALG hand-assisted laparoscopic stage accounted for a relatively low proportion of the total operative time(page 7), why is it the key of the HALG learning curve(page 6)?

The HALG surgical method was divided into three phases: Surgery under direct vision via the port for hand-assistance;② Hand-assisted laparoscopic surgery; Gastrointestinal tract reconstruction phase. The phases ① and ③ were performed under direct vision via the port for hand-assistance, which wasn't difficult for surgeons who have already mastered the technique of laparotomic radical gastrectomy. However, the phase ② is the key of HALG. If the phase ② is completed perfectly, HALG should be done beautifully.

Answer to reviewer 1047712

To editor/authors: It is very interesting research work. I have no questions about the manuscript. Discussion in some parts should be modified.

Thanks for your comments, the part of Discussion has been made some revisions, and we don't know which meet you or not. Thank you very much.

Answer to reviewer 1503696

(1) **The major concern is how many readers are interested in HALS. Now, technique of conventional laparoscopy-assisted gastrectomy is established, more sophisticated technique of totally laparoscopic surgery is established, and accrual of large phase III studies has been finished. Even though authors demonstrated similar QOL between conventional LAG and HALG, 7 cm incision at upper abdomen is neglectable. (2)The authors emphasized HALG-D2. D2 is complicated surgery and therefore, the authors must establish**

HALG-D1/D1+ before introducing D2. No one start HALG-D2 for advanced disease without any experience of HALG. The readers want to know the learning curve of HALG-D1/D1+ for early gastric cancer as an initial step (if really want to learn HALS). (3)The present cohort included total and distal gastrectomy which is different surgery with different difficulties.

Thanks for your comments and we are very glad to share your opinions . however, we have some different viewpoints for HALS. As your view, the laparoscopy-assisted D2 radical gastrectomy (LAG) is as thorough and safe as a laparotomy for the treatment of advanced gastric cancer has been accepted by the majority of surgeons. Compared to laparotomic radical gastrectomy, laparoscopic surgery has apparent advantages, such as smaller incisions resulting in superior cosmetic outcomes, less pain, and a shorter length of postoperative hospital stay. However, laparoscopic surgery also possesses some drawbacks, for example, the operation is more difficult, the learning curve of the surgery is longer, and the long operative time often leads to the operators becoming tired during the surgery. We attempted to identify a point for the above two techniques that maintains their advantages but eliminates their shortcomings, and we developed our own surgical approach and performed a hand-assisted laparoscopic D2 radical gastrectomy (HALG). This procedure has been widely reported in China, has been introduced in multiple keynote speeches in national meetings, and has inspired wide spread acclaim. So far, we have opened several training courses, and received good responses. So, as HALS for colectomy, HALG has been gotten more and more recognition.

Our preliminary work, titled:Hand-assisted laparoscopic vs. laparoscopy-assisted D2 radical gastrectomy: a prospective study, has been accepted for publication by ***Surgical Endoscopy***.

HALG is a surgical procedure that can be easily mastered, so, surgeons who have already mastered the technique of laparotomic radical gastrectomy can absolutely start HALG-D2 for advanced disease without any experience of HALG regardless of total gastrectomy or distal gastrectomy. Of course, when accumulated some experiences of HALG for distal gastrectomy, a surgeon will conduct HALG for total gastrectomy more easily.

Answer to reviewer 2536907

(1) In this article, the author told us that all surgeries were performed by the same group of surgeons. I suggest that the author should explain whether one surgeon or a group of surgeons completed the surgeries. If a group of surgeons completed the surgeries, whether different surgeons affected the result of the analysis or not?

In our center, only our group of surgeons performed these surgeries, and all the HALG cases were completed by the same surgical team (shown in **Introduction**, **page 2**). So, the learning curve of HALG should be scientific and credible. And also, some unfavorable factors which affected the result of the learning curve were ruled out when different surgeons completed the surgeries.

(2) If the manuscript is further polished by English natives, it will be more simplified and fluent. In all, I recommend the paper acceptable after minor revision.

Thanks for your suggestions. This paper has been edited by American Journal Expert(AJE), and we have tried our best to make more polished.