

Peer Review File

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Major comments

1. The reviewer considers that intraoperative determination of the proximal boundary is not proper, and preoperative determination of the proximal boundary, markings proximal to the boundary, intraoperative confirmation of the markings, and transection of the stomach proximal to the markings is a proper method although the authors mentioned that preoperative marking was not required. Intraoperatively, the proximal boundary may not be precisely determined using an endoscope as surgical dissection around the esophagus may influence the mucosal and/or submucosal findings. Therefore, preoperative marking is recommended. The reviewer would like to hear the authors' opinion regarding this point.

Reply 1: Preoperative gastroscopy can be inconvenient for patients. Excessive staining obscures the precise location of the tumor, whereas accidental intraperitoneal injection may cause excessive spread of the dye, creating an unclear surgical area. Preoperative endoscopic clipping, on the other hand, requires the surgeon to palpate clips to identify the tumor location during surgery. In laparoscopic surgery, the ability to palpate the stomach is lost, and it is sometimes difficult to palpate clips located at the esophagogastric junction, even through a minilaparotomy wound. After the surgeon separated the esophagus, the esophagus wall can be clearly exposed, under the guidance of the endoscopist, the surgeon can accurately locate the upper resection margin of the tumor. In order to avoid submucosal infiltration, frozen pathological examination during the operation to ensure that the proximal margin is negative before performing anastomosis.

Changes in the text: We added some opinion (see Page 14, line 233-235)

2. Mucosal tumor is the optimal indication of intraoperative determination of the proximal boundary. The submucosal change and infiltration are not always identified by intraoperative endoscopy as the authors mentioned in the discussion section. Thus, the authors should have conducted studies for cT1 and cT2-4 diseases.

Reply 2: According to the postoperative pathological staging, the resection margins in patients with pT0-1 were negative (0/28). Further subgroup analysis shows the long group had a statistically significant lower frequency of positive margin than the short group (0% vs. 40%, $p = 0.020$) in patients with pT2-4. Therefore, our research also confirmed that the short group was more likely to have positive margins in patients with cT2-4 diseases.

Changes in the text: We have modified our text as advised (see Page 11, line 79-82 and Page 14, line 241-242)

3. Similarly, the authors should have conducted studies for lesions involving the esophagus or not because required length of the proximal margin may be different between them.

Reply 3: There was no positive margin in all patients who did not invade the esophagus whether in the long group or the short group. Further subgroup analysis shows that although the long group had a lower frequency of positive margins in the patients involving the esophagus, but the difference was not statistically significant (0% vs. 26.7%, $p = 0.106$), perhaps due to the limited number of patients included in the study. But it also indicates that the distance of the proximal resection margin maybe beyond 2 cm from the edge of the tumor in patients with EGJ invasion.

Changes in the text: We have modified our text as advised (see Page 16-17, line 275-280)

Minor comments

1. Didn't the authors use other methods to determine the proximal boundary of the tumor during the study period? The authors described consecutive 52 patients. Does the description mean the 52 patients only underwent TLTG during the study period? Did the authors have exclusions from this study? Please clarify this point. If possible, a flowchart of included and excluded patients will help readers understand this study.

Reply 1: During the study period, we performed 52 cases of total laparoscopic total and proximal gastrectomy consecutively from January 2018 to May 2020, all of which were performed by intraoperative gastroscopy to locate the proximal resection margin

Changes in the text: We have modified our text as advised (see Page 6, line 82-85)

2. Why did the endoscopist mark 1 cm proximal to the tumor boundary and the other did 2 cm? Were they their preferences or did they have special intentions?

Reply 2: This is determined by the different preferences of endoscopists

Changes in the text: We have modified our text as advised (see Page 7, line 111)

3. The authors should present actual gross proximal margin lengths of the short and long groups in Table 2 to show whether the authors' method was reliable or not.

Reply 3: The median of actual gross proximal margin lengths was 2cm in the long group and 0.8cm in the short group, respectively.

Changes in the text: We have modified our text as advised (see Page 10, line 162-163 and Table 2)

4. All the patients with pathologically positive margins had Siewert type II cancer and the short proximal margin. Thus, should the authors conclude that Siewert type II cancer needs > 2 cm proximal margin to obtain pathologically negative margin? Do other types of cancer (Siewert type III and upper gastric cancer) need > 2 cm margin? Of course, longer proximal margin is more secured.

Reply 4: Although positive resection margins occurred all in the Siewert type II cancer, but 28.6% (4/14) of Siewert type III cancer tumors also have EGJ invasion, so it was still needs > 2 cm proximal margin to obtain pathologically negative margin in patients with Siewert type III cancer.

Changes in the text: We have modified our text as advised (see Page 17, line 281-284)

5. Did the included patients undergo endoscopic examination preoperatively? If they did, it is very easy and proper to place markings in preoperative examination. The preoperative markings will shorten the time to identify the proximal boundary of the tumor.

Reply 5: None of the included patients undergo preoperative gastroscopy for tumor localization, we also mentioned the limitations of preoperative gastroscopy marking in the article. The median time required for tumor localization with intraoperative gastroscopy only was 5.8 min.

Changes in the text: we have modified our text as advised (see Page 6, line 91)

6. What is other histological type in Table 1? It occupied relatively major (more than 20%).

Reply 6: other histological type included no tumor or degenerative cancer cells after preoperative treatment in 6 cases, hepatoid adenocarcinoma in 1 case and adenosquamous carcinoma in 3 cases.

Changes in the text: We have modified our text as advised (see Table 1)

7. Whether do depth of tumor and lymph node status in Table 1 represent clinical or pathological diagnosis? The authors should describe them clearly.

Reply 7: The depth of tumor and lymph node status in Table 1 represent pathological diagnosis.

Changes in the text: We have modified our text as advised (see Table 1)

8. Did authors transect the stomach using endoscopic guidance in 17 proximal gastrectomies?

Reply 8: Yes, we resected the stomach under the guidance of intraoperative gastroscopy in proximal gastrectomy.

Changes in the text: We have modified our text as advised (see Page 8, line 127-128)

9. When the authors determined the transection line of the esophagus, did the authors consider the tumor findings of the serosal surface (although the esophagus dose not the serosa)? The mucosal findings the endoscopy presents do not always correspond to the serosal findings the laparoscopy presents.

Reply 9: Gastric cancer initially developed from the mucosal and invaded the serosal layers gradually, it was more accurate for the upper edge of the tumor determined by endoscopy. The 0-pT3 patients accounted for 96.2% (50/52) in this article, so the serosal findings usually normal. During the operation, the surgeon and the endoscopist determined the position of the proximal resection margin together.

Changes in the text: We have modified our text as advised (see Page 14, line 228-230)