

## Peer Review File

Article information: <https://dx.doi.org/10.21037/jgo-23-166>

### Review comments-Reviewer A

**Comment 1:** The article states that cervical esophageal and gastric anastomosis using a stapler maintains blood flow, reduces tension, and significantly reduces suture failure compared to conventional anastomosis. However, please elaborate a little more on why reflux into the cervical esophagus is significantly lower in the stapler group.

**Reply 1:** The possible causes and mechanisms are explained in lines 307 to 312 of this article

**Comment 2 :** state whether the reconstruction route for the gastric tube is the posterior mediastinum route or the retrosternal route.

**Reply 2:** The stomach fundus was pulled up to the neck by the posterior mediastinum route

**Changes in the text:** instructions are provided in lines 148-149 of the article

### Review comments-Reviewer B

**Comment 1:** In 'abstract', what is “sleeve stapler....”?

**Reply 1:** The original meaning was to embed a constomosis sleeve pattern into the stomach cavity, which has been simplified to take into account the possible misunderstanding

**Changes in the text:** Lines 51 sleeve stapler-assisted nested to stapler-assisted nested

**Comment 2 :** Please describe clearly through what route were your stomach pulled up to the neck for anastomosis?

**Reply 2:** The stomach fundus was pulled up to the neck by the posterior mediastinum route

**Changes in the text:** instructions are provided in lines 148-149 of the article

**Comment 3 :** Please label fig.1 and describe with a hand-drawn diagram.

**Reply 3:** A detailed description of Figure 1 is found in lines 161-167 of the article

### Review comments-Reviewer C

**Comment 1 :** some lexical inaccuracies present in the text need to be corrected. I believe that a more accurate description of the surgical technique for anastomosis is necessary, as well as a more detailed presentation of the surgical results

**Reply1:** The relevant detailed surgical procedures in lines 134-158 of the text have been added,

**Comment2 :** the Conclusion section needs to be expanded with a mention of robotic surgery and its results. The authors can refer to the following work: <https://doi.org/10.1007/s11605-023-05616-w>

**Reply2:** Robotic esophageal cancer surgery began in 2022 and has 211 cases so far, and the experience and conclusions of relevant robotic surgery for esophageal cancer will be summarized and extended to the conclusions

### **Review comments-Reviewer D**

The authors revealed that the use of tubular stapler-assisted nested anastomosis could significantly reduce postoperative complications compared to the conventional mechanical tubular

This manuscript is well-written. However, there are some points to be addressed before publication.

1. Authors described the illustrations of anastomosis in Figure 1 and 2. However, it is difficult to understand the shape of anastomosis from these illustrations intuitively. Please add some illustrations (for example, before suturing around the esophagus to embed it in the stomach wall, the coronal section of the anastomosis, etc)

2. Line 101-110 are patients' backgrounds. Please write this part in the result and provide patients' backgrounds as Table.

3. How wide is the gastric tube in this cohort? Please add the information in Methods.

4. I consider this nested anastomosis requires the length of gastric tube to some degree. Were there cases in which this nested anastomosis could not be performed? How many cases?

**Comment 1 :** Authors described the illustrations of anastomosis in Figure 1 and 2. However, it is difficult to understand the shape of anastomosis from these illustrations intuitively. Please add some illustrations (for example, before suturing around the esophagus to embed it in the stomach wall, the coronal section of the anastomosis, etc)

**Reply 1:** Added Illustration 2 shows the morphology and status of the gastroesophageal anastomosis nested into the stomach cavity

**Changes in the text:** A new figure is added in lines 518-527 of the text

**Comment 2 :** Line 101-110 are patients backgrounds. Please write this part in the result and provide patients' backgrounds as Table.

**Reply 2:** The patient's background has been organized into Table 1 in line 497 of the text

**Changes in the text:** The patient's background has been organized into Table 1 in line 497 of the text

**Comment 3 :**How wide is the gastric tube in this cohort? Please add the information in Methods.

**Reply 3:** In the area superior to the pylorus, the right gastric artery and vein were transected. Utilizing a linear cutting stapler, the stomach was reshaped along the greater curvature from the lesser curvature side superior to the pylorus in an upward direction, creating a narrow tubular shape with a diameter of 3 cm

**Changes in the text:** The relevant detailed surgical procedures in lines 144-147 of the text have been added

**Comment 4 :** I consider this nested anastomosis requires the length of gastric tube to some degree. Were there cases in which this nested anastomosis could not be performed? How many cases?

**Reply 4:** As you pointed out, this anastomosis requires a long tubular stomach, and we have a set of methods to make a tubular stomach to get a long enough stomach, and at the moment we have not encountered a situation where the tubular stomach is not long enough

**Changes in the text:** The relevant detailed surgical procedures in lines 144-147 of the text have been added

### Review comments-Reviewer E

**Comment 1:** Please check if any references are missing here since you've mentioned "studies".

307 and excessive scarring leads to anastomotic stenosis after healing. Although studies have  
308 indicated that anastomotic stenosis is related to gastroesophageal reflux, the reason for  
309 this relationship remains undetermined. Anastomotic edematous or cicatricial strictures

**Reply:** The missing references for the text you refer to have been added, as detailed in line 318 of the text and lines 490-491 of the references, reference number 42.

**Comment 2:** Table 1-2: Please define those data either inside the table or in table footnote respectively (e.g., SD).

Men	239	150
Women	93	62
Average age (years)	56.58 ± 4.83	57.74 ± 7.56
Average weight (kg)	67.17 ± 7.15	65.69 ± 7.56
Average tumor size (cm)	4.78 ± 1.03	4.97 ± 1.04

Complications <sup>↕</sup>	Tubular stapler-assisted nested anastomosis group (n=97) <sup>↕</sup>	Conventional mechanical tubular anastomosis group (n=85) <sup>↕</sup>	P value <sup>↕</sup>
Incidence of anastomotic fistula <sup>↕</sup>	0% (0/332) <sup>↕</sup>	5.2% (11/212) <sup>↕</sup>	0.000 <sup>↕</sup>
Lung infection <sup>↕</sup>	3.3% (11/332) <sup>↕</sup>	11.8% (25/212) <sup>↕</sup>	0.000 <sup>↕</sup>
Gastroesophageal reflux <sup>↕</sup>	6.9% (23/332) <sup>↕</sup>	16.0% (34/212) <sup>↕</sup>	0.001 <sup>↕</sup>
Anastomotic stenosis <sup>↕</sup>	3.0% (10/332) <sup>↕</sup>	10.4% (22/212) <sup>↕</sup>	0.000 <sup>↕</sup>
Neck incision infection rate <sup>↕</sup>	0.9% (3/332) <sup>↕</sup>	7.1% (15/212) <sup>↕</sup>	0.000 <sup>↕</sup>
Operative anastomosis time <sup>↕</sup>	(11.0 ± 1.54) min <sup>↕</sup>	(18.5 ± 3.20) min <sup>↕</sup>	0.001 <sup>↕</sup>
Arrhythmia <sup>↕</sup>	6.3% (21/332) <sup>↕</sup>	7.1% (15/212) <sup>↕</sup>	0.731 <sup>↕</sup>
Recurrent laryngeal nerve <sup>↕</sup>	0.9% (3/332) <sup>↕</sup>	2.4% (5/212) <sup>↕</sup>	0.169 <sup>↕</sup>
Chylothorax <sup>↕</sup>	1.2% (4/332) <sup>↕</sup>	1.4% (3/212) <sup>↕</sup>	0.832 <sup>↕</sup>
Anastomosis <sup>↕</sup>	16.6% (55/332) <sup>↕</sup>	23.6% (50/212) <sup>↕</sup>	0.043 <sup>↕</sup>

**Reply:** As you said, what you marked does indicate the standard deviation, and according to your revision, we have defined the relevant data in the table as the mean ± SD.

Average age (years)*	56.58 ± 4.83	57.74 ± 7.56
Average weight (kg)*	67.17 ± 7.15	65.69 ± 7.56
Average tumor size (cm)*	4.78 ± 1.03	4.97 ± 1.04
Tumor location (upper thoracic)	85	47
Tumor location (middle thoracic)	160	84
Tumor location (lower thoracic)	87	81

506 \*, values were expressed as mean ± SD.