

## Peer review file

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### Reviewer A

#### Comment 1

The title reflects the subject of the study. This manuscript presents a clear and clinically useful message. It is well written in terms of clarity, style, and use of English language. Materials and methods are sufficiently detailed. The discussion section explains adequately the purpose of this study in the context of published information. The conclusions accurately and clearly explain the main results. The length of the manuscript is ideal. The figure is of good quality and relevant to the subject. All references are appropriate and current.

#### Reply 1

Thank you for these kind comments.

### Reviewer B

#### Comment 1

Cecilia Benz et al. described the review of postoperative dysphagia following esophagectomy. Their observations are important for the dysphagia that is a common complication after esophagectomy. However, I have several concerns that need to be addressed before considering publication.

The comparing with McKeown and Ivor Lewis esophagostomy is an important view of dysphagia after esophagectomy. In several studies, patients after McKeown esophagectomy developed more problems with 'eating with others' compared to patients after Ivor Lewis esophagectomy (PMID: 32444879,30298418)

#### Reply 1

We agree with this point. The references you mention are excellent analyses of quality of life after esophagectomy, and the relationship of the type of esophagectomy with quality of life metrics. In the second to last paragraph of the *Gastroesophageal Anastomosis* section on page 6, we have added information about the impairment with “eating with others” and relationship to type of esophagectomy. We have also included these two references in our reference list.

#### Comment 2

Swallowing test and rehabilitation is a good point of view about dysphagia after esophagectomy. The authors should reference the similar articles about swallowing test and rehabilitation after esophagectomy in the new theme.

#### Reply 2

This is a good point. We have now added information about swallowing function and rehabilitation after esophagectomy. In the third to last paragraph in the *Gastroesophageal Anastomosis* section on page 6, we have added some kinematic observations which occur after esophagectomy to worsen swallowing mechanisms. We have also included a reference which shows the benefit of swallowing rehabilitation after esophagectomy in improving quality of life.

### **Comment 3**

From 1992-2021, there are a few of article about postoperative hiatal hernia after esophagectomy. Thus, I suggest to shorten the theme of hiatal.

### **Reply 3**

We have shortened the hiatus section.

### **Reviewer C**

#### **Comment 1**

We carefully review the literature review from Benz et al. It is definitely a hot topic regarding esophagectomy and post-operative complications. It is a well written article; however I suggest some complementary issues:

#### 1- Gastroesophageal anastomosis

The topic location of anastomosis should be improved. There are several studies comparing cervical to intra-thoracic anastomosis. Factors like anastomotic perfusion, vocal palsy, stenosis might be discussed more. Discrepancies between east and west hospital centers results, Squamous cell carcinoma and adenocarcinoma differences which lead to different esophageal margins and possibly interfere of dysphagia and results.

#### **Reply 1**

We agree with this point and have added more details to this section. In the third paragraph of page 6 we have added comments about differences between the Eastern and Western Hemispheres, impact of histology on location of the anastomosis and risks of recurrent laryngeal nerve injury.

#### **Comment 2**

Results of the dilatation should be considered, and also stents, stenotomy.

#### **Reply 2**

We agree with this point. In the first paragraph of page 5, we have added a reference and comments about the results of a meta-analysis specifically addressing the topic of dilation after esophagectomy.

#### **Comment 3**

I disagree that "the most common benign cause of anastomotic stricture is inflammation", several studies correlates to ischemic process, but this issue could be more detailed. (perfusion studies, indocyanine, thermography - to improve perfusion and reduce stenosis)

### **Reply 3**

We agree that this section was not worded well. We have changed this section significantly. We have now added in that section that “The most frequent cause of anastomotic stricture after esophagectomy is from a perioperative anastomotic leak. These leaks usually occur secondary to ischemia or excessive tension on the anastomosis. Newer modalities such as thermography and fluorescence imaging may have a role in identifying ischemic areas of the gastric conduit prior to anastomosis.”

### **Comment 4**

In malignancy causes, which the term "recurrence" might be more appropriate, authors could discuss options of treatments.

### **Reply 4**

We have changed the terminology and added potential options. In the second paragraph of page 4 we say “An anastomotic stricture which develops remotely after surgery should stimulate a workup to rule out recurrence of cancer. Recurrent cancer at the anastomosis can be treated with dilation or stenting to alleviate symptoms if present. Thereafter, chemotherapy and/or radiation treatment are potential options. Rarely, repeat resection of disease will be possible.”

### **Comment 5**

2- Gastric Conduit

There are some studies in achalasia (esophagectomy - end stage) which found a relationship between width of gastric tubularization to occurrence of reflux, stenosis and Barrett's esophagus.

### **Reply 5**

We have added a comment that tubularization of the gastric conduit has been associated with less dysphagia and reflux in some studies. This comment has been added to the second to last paragraph on page 7. We have also added that reference to the reference list.

### **Comment 6**

3- Pylorus

Some authors propose a Y roux derivation. This issue should be mentioned.

### **Reply 6**

In the first paragraph of page 9, we have now added a comment about the role of Roux-en-Y gastrojejunostomy during esophagectomy.

### **Comment 7**

4- Hiatal hernia

The term diaphragmatic hernia should be considered too. There is a recent metanalysis of this issue.

### **Reply 7**

Although we have kept the term hiatus, we agree that the entire diaphragm should be considered. So we have changed the section heading from *Hiatus* to *Diaphragm*.

## **Reviewer D**

### **Comment 1**

The authors reviewed the systematic, evidence-based approach to diagnosis and treatment of postoperative dysphagia after esophagectomy. The content is organized by etiologies and seems to be meaningful to many surgeons. However, making some revisions seemed to lead to improvements.

Major point:

1. Although cervical anastomosis is mentioned in the section of esophagogastric anastomosis, the symptoms and risk of developing postoperative dysphagia in intrathoracic anastomosis should be described separately.

### **Reply 1**

We agree with this important point. We have now expanded this section. In the third paragraph of page 6 we have added comments about differences between the Eastern and Western Hemispheres, impact of histology on location of the anastomosis and risks of recurrent laryngeal nerve injury. We have now discussed more about the potential risks of dysphagia with intrathoracic anastomoses.

### **Comment 2**

2. Is the posterior mediastinal route the only reconstructive route for the gastric tube?  
The authors should at least consider the retrosternal route.

### **Reply 2**

We agree that this is an important point. In the second paragraph of page 8, we have now included information about the rates of dysphagia when comparing the posterior mediastinal to the substernal route for gastric pull-up.

### **Comment 3**

3. The authors have shown local recurrence as the cause of delayed anastomotic stricture, but does esophagogastric reflux not cause an anastomotic stricture? Similarly, does esophagogastric reflux cause the postoperative dysphagia of gastric conduit?

### **Reply 3**

We feel that the most common causes of benign stricture are anastomotic leak. We have now clarified that section, however. In the second paragraph of page 4 we now say “An anastomotic stricture which develops remotely after surgery should stimulate a workup to rule out recurrence of cancer. Recurrent cancer at the anastomosis can be treated with dilation or stenting to alleviate symptoms if present. Thereafter, chemotherapy and/or radiation treatment are potential options. Rarely, repeat resection of disease will be possible.”

### **Comment 4**

4. Gastric tube shape in esophageal reconstruction should be discussed from short- and medium-term outcomes including postoperative dysphagia as well as anastomotic leakage. Therefore, at

present, there seems to be no consensus that a narrow gastric tube is superior to a wide gastric tube.

**Reply 4**

We have added a reference about the potential benefits of gastric tubularization. We have added a comment that tubularization of the gastric conduit has been associated with less dysphagia and reflux in some studies. This comment has been added to the second to last paragraph on page 7. We have also added that reference to the reference list.

**Comment 5**

Minor point:

1. The authors described that the width of the gastric tube is approximately 3 cm (line 165), but this does not seem to be universal. What is a rationale for being universal?

**Reply 5**

We agree that there is still debate about the ideal width of the gastric conduit. But we have added some information and commented about tubularization as per the previous comment.

**Comment 6**

2. What exactly does the esophageal dissection and subsequent resection indicate? (line 190)

**Reply 6**

We agree that this terminology is confusing. We have now changed it to “During the esophageal mobilization and subsequent resection.”