Peer Review File

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Reviewer A:

The authors wrote a non-systematic literature review on the current status on esophagectomy for esophageal adenocarcinoma. They highlight the current debates on the treatment of junction tumors, nodal disease and type of resection. Most of these topics featured in this manuscript are relevant. I do have some questions:

1. Open versus endoscopic does not seems to be a current topic, as endoscopic treatment has become standard these days. Robot-assisted surgery seems promising, but the authors highlight a learning curve. It however is unclear to me what the authors try to tell about this matter. Please clarify this matter.

   Thank you for this comment. Although many academic/foregut surgeons think that minimally invasive esophagectomy is becoming standard of care, that is not necessarily the case in practice Nationally. In the most recent STS analysis only 22% of esophagectomies were performed minimally invasively. It is important to keep telling people that improved outcomes can come with a minimally invasive approach without sacrificing oncologic outcomes. We have added a section to address this in the text.

2. Intrathoracic or cervical anastomosis during esophagectomy is still a relevant topic. Please comment on this.

   We agree that controversy persists on the location of esophageal anastomoses. However, in the limited space of our review, we did not feel this was a controversial enough topic to pursue.

3. Patient selection based on patient factors is one of the key factors for success. The authors should debate on this.

   Again, we agree there is a lot important topics within patient selection, but given the limited space of our review, we did not feel this was a controversial enough topic to pursue.

4. Minor: please check the references. Corrected, thank you

Reviewer B:

Worrell and Molena present a concise review of the surgical management of esophageal adenocarcinoma. Multi-modal therapy has become the standard of care for esophageal adenocarcinoma, but treatment regimens continue to evolve.

1. Lines 9-10, the phrase “get patients through surgery is somewhat colloquial, consider: “Therefore the goals of surgery are to minimize morbidity, provide aggressive local control and allow patients to receive adjuvant systemic therapy.”

   Thank you for the suggestion. Changes made.

2. Lines 54-55, consider: In the last decade, multi-modal therapy has become the standard of care for locally advanced esophageal carcinoma. The survival benefit of multi-modal therapy has been greater in squamous cell carcinoma compared with adenocarcinoma.

   Thank you for the suggestion. Changes made.

3. Lines 55-56. Consider: “Checkmate 577 revealed improvement in disease free survival in both adenocarcinoma and squamous cell carcinoma with the use of adjuvant immunotherapy (2).

   Thank you for the suggestion, changes made.

4. Lines 60-62, see comment #1.

   Thank you for the suggestion, changes made.

5. Lines 72-73, consider: “This technique has become increasingly popular due to the ability to perform a thorough mediastinal lymphadenectomy, the ability to obtain a greater distal gastric margin, and it allows the use of a better perfused region of the gastric conduit to create the esophagogastrostomy.

   Thank you for the suggestion, changes made.

6. Consider grouping the sections on surgical considerations together by moving lines 136-216 up to follow lines 75. The background (lines 61-63) states that the manuscript will discuss controversies in surgical resection, need for surgery and post-operative therapy. This allows the reader to focus on surgical issues in series.

a. Line 65: The entire surgical section could be renamed as “Surgical Strategies” The hierarchy could be:

i. Surgical Strategies

1. Approach (Ivor Lewis vs three field)

a. consider in this section a note on transhiatal since many surgeons still use this technique although it is falling out of favor.

2. Esophagectomy versus gastrectomy: This section would include lines 77-97. By naming this section it helps the reader understand the well explained oncologic discussion that favors esophagectomy over gastrectomy for Siewart II tumors.

3. MIE versus Open

4. Pyloric management

7. Lines 80-86: Consider: In clinical practice in the United States, the use of gastrectomy for GEJ tumors is prevalent for Siewert type 2 tumors has mixed results. Siewert type 2 tumors are defined as a tumor with an epicenter up to 1cm above and 2cm below the GEJ. With the new staging system adopted in 2018, these are defined as esophageal tumors. A National Cancer Database study looking at Siewart type 2 compares all type 2 tumors resected from 2010 to 2016. Interestingly, 90% (8595/9594) received a gastrectomy (5).

Thank you, correction made.

8. Lines 113-114, data is a pleural word, consider: There are no data currently available regarding the use of adjuvant immunotherapy after neoadjuvant chemotherapy.

Corrected, thanks

9. Lines 116-117: consider: "Another potential benefit of esophagectomy is the presence of mucosal skip lesions. Aggressive GEJ adenocarcinomas can travel along the submucosal plexus of the esophagus proximal to the endoscopically identified tumor. Esophagectomy allows for a greater proximal margin."

Corrected, thank you

10. Lines 209-214: Many advanced endoscopists feel that a POP or G-POEM is more technically demanding than a POEM for achalasia because of the difficulty of creating a submucosal tunnel. In the setting of an esophagectomy where the pylorus is often near the hiatus this technical demand is exacerbated.

Thanks for this comment, a sentence was added.

11. Lines 219-261: Could authors include some the single center series that report residual disease after resection in the setting of complete clinical response.

Thank you, great comment, additional data added.

12. One emerging controversy is the use of chemotherapy alone as induction therapy compared to chemoradiation. Donlon et al, Ann Surg 2022;276:792-798. The authors should consider touching on this topic.

While we definitely agree with this, we felt it was beyond the scope of controversies in the surgical management and the subject of its own review.

13. The authors could also consider discussing the use of immunotherapy in patients with low PDL expression.

Same as above. Agree, great topic beyond the scope of a surgical review.

14. The authors should mention that most centers are using 50.4 Gy of radiation compared to the protocol described in the CROSS study

Great point, although we agree this is beyond the scope of this surgical controversies for review.