

Peer Review File

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Reviewer A

In the systematic review and meta analysis presented by HAO et al, the authors compare outcomes in patients undergoing RAMIE versus VAMIE. Outcomes examined include number of lymph nodes harvested, incidence of pneumonia, anastomotic leak, chylothorax, operative time, blood loss, nerve palsy and length of stay. This review consisted predominantly of retrospective reviews which colour the data to some extent and warrants discussion in and of itself. However, the methodology employed is sound. Furthermore, the topic is relevant and in the interest to practitioners of esophageal surgery at large. This being said, there are some major limitations that preclude publication of this article in its present form.

Comment 1: the authors present some data on complications (Anastomotic leak and pneumonia). However, this needs to be bolstered to include discussion of major conduit complications including necrosis and TEF. TEF in particular has been reported following adoption of RAMIE early in the learning curve. This should at least be discussed.

Reply: these complications were rarely compared between RAMIE and VAMIE due to low incidence. As more patients receive RAMIE, it is needed to evaluate the incidence of necrosis and TEF in the future.

Changes in the text: we have modified our text as advised (see Page 5, line 189-191)

Comment 2: The results section is quite disorganized and needs to be presented in a more orderly, easy to follow manner.

Reply: This meta-analysis has been modified, we provided the certificate.

Comment 3: The figures are low resolution and difficult to read. Labeling needs to be more thorough.

Reply: This meta-analysis has been modified, we provided the certificate.

Comment 4: The language throughout is difficult to follow and warrants review.

Reply: This meta-analysis has been modified, we provided the certificate.



Reviewer B

I would like to compliment the authors of the manuscript because it is concise and clean. However, there are a few questions I would like to see answered.

Comment 1: Abstract: What is RLN and what is meant by “The consistent results could be found in Mckown group and ESCC group.”?

Reply: RLN refers to recurrent laryngeal nerve. RAMIE patients were subjected to the removal of a higher number of total lymph nodes (MD=0.173; 95% CI:0.080-0.265; P<0.001) and a higher number of lymph nodes along left RLN (MD=0.220; 95%CI:0.090-0.350; P=0.001) in Mckown group, and RAMIE patients were subjected to the removal of a higher number of total lymph nodes (MD=0.249; 95% CI:0.091-0.407; P=0.002) and a higher number of lymph nodes along left RLN (MD=0.239; 95%CI:0.102-0.377; P=0.001) in ESCC group.

Changes in the text: We defined RLN the first time the term was used (see Page 1, line 13). We added some data to confirm RAMIE was related to higher number of total lymph nodes and lymph nodes along left RLN in Mckown group and ESCC group. (see Page 1, line 15-18)

Comment 2: Introduction: The two mentioned meta-analysis are not clearly referred to (line 35 and 36).

Reply: The two mentioned meta-analysis refers to Jin and Zheng.

Changes in the text: We added the two studies in references. (see Page 1, line 37)

Comment 3: Methods: can the incidences/mean numbers be mentioned, for example in the Figures 3-7.

Reply: We can provide the incidence and mean numbers in all studies which were enrolled in this meta-analysis.

Changes in the text: We added another table to show all the incidence and mean

numbers in all studies which were enrolled in this meta-analysis. (see Page 9, line 310)

Comment 4: Discussion: The authors mention number of lymph nodes as significantly different outcome. Do the authors think this is an important parameter indeed? I would like to see a comment in the discussion.

Reply: We think number of lymph nodes is an important parameter in both accurate staging and local control, it can be expected to improve clinical outcomes in both ESCC and esophageal adenocarcinoma. Accurate lymph nodes staging is of great significance in subsequent treatment.

Changes in the text: we have modified our text as advised (see Page 4, line 161-164)

Comment 5: What to the authors mean by: “Surgeon can’t deal with emergencies immediately because of sterile requirement.”?

Reply: The surgeons who lead the team do the operation with the aid of console which is not on the operating table. They must deal with emergencies after washing the hands and meeting the sterile requirements.

Changes in the text: we have modified our text as advised (see Page 4, line 158-160)

Reviewer C

The authors performed meta-analysis using 19 high quality studies which consisted of 2306 RAMIE patients. They concluded that RAMIE is more harvested number of lymph node which may be beneficial to diagnosis and local control.

It was well-written and useful for the reader.

Reviewer D

Up to now, two meta-analyses are available for reporting the comparison between RAMIE and VAMIE. They reached an agreement with lower incidence of vocal cord palsy in RAMIE.

Comment 1: However, in this meta-analysis, no difference in the incidence of vocal cord palsy was found between RAMIE and VAMIE. Please discuss the reason in the discussion section.

Reply: Vocal cord palsy is related to extent of the lymph nodes removal along RLN. Jin found RAMIE was consistent with lower incidence of vocal cord palsy based on the result that the difference of harvested number of lymph node was not statistically

significant. Zheng found the similar result within comparing the harvested number of lymph node. This meta-analysis indicated that RAMIE patients were subjected to the removal of a higher number of lymph nodes along left RLN. However, no difference in the incidence of vocal cord palsy was found between RAMIE and VAMIE. We thought it is because surgeons placed emphasis on reducing the incidence of complication in the past, while surgeons focused on a higher number of lymph nodes along left RLN to improve prognosis.

Changes in the text: we have modified our text as advised (see Page 4, line169-176)

Comment 2: In the Results section (Page 4, Line 1-3), it is described that RAMIE patients were subjected more pneumonia compared with VAMIE in 11 studies and VAMIE patients were subjected to more pneumonia in 2 studies. Please check if these sentences are correct.

Reply: We found we made a mistake. RAMIE patients were subjected more pneumonia compared with VAMIE in 2 studies and VAMIE patients were subjected to more pneumonia in 11 studies.

Changes in the text: we changed the number based on the results. (see Page 4, Line 1-3)