Reviewer’s report

Title: Trans-hiatal Repair for Oesophageal and Junctional Perforation: A Case Series

Version: 0 Date: 02 Dec 2019

Reviewer: Zubair Bayat

Reviewer's report:

The authors describe three cases of visceral perforation, localized to the distal esophagus or the very proximal stomach. These cases demonstrate that laparoscopic repair of distal esophageal/upper gastric perforations is possible, and adds to the body of evidence cited by the authors. This is a topic of interest to thoracic, upper GI, acute care, and general surgeons, as any of these physicians may be called upon to treat this challenging condition. The algorithm presented to guide patient selection for minimally invasive esophageal repair appears particularly valuable.

To strengthen this well-written manuscript:

1) The authors (rightly) propose minimally invasive repair only in stable patients with acute perforations. This should be included in the algorithm (figure 1), and highlighted in the caption for Figure 1 and in the patient selection portion of the text.

2) The authors have reviewed the literature for previous case reports demonstrating the feasibility of minimally invasive laparoscopic repair. If this evidence can be expanded upon and synthesized it would add considerable value to the manuscript, and (in addition to the algorithm) serve to differentiate the authors' manuscript from previous similar case reports. It would be worthwhile, if possible, for example, to identify how accurate CT estimation of the site of perforation is, or whether patients treated with chest tube drainage for salivary contamination in the pleural cavity often end up needing decortication at a later time (since the algorithm makes assumptions about the accuracy of CT and that effusions without gross contamination do not warrant prophylactic operative washout).

3) The patient in case report 2 underwent laparoscopic repair of his esophageal perforation. With the benefit of hindsight, could his prolonged surgery have contributed to his AKI and shock liver? Was the patient hemodynamically unstable before/during the surgery? Was the repair done with the patient receiving inotropic support? Perhaps this case bears a little more discussion through the lens of the algorithm - was he, in hindsight, a good candidate for laparoscopic repair? Similarly, were patients 2 and 3 truly acute perforations and, therefore, appropriate patients for laparoscopic repair?

4) Although all patients were found to have pneumomediastinum, cases 1 and 3 do appear to have been gastric perforations near the gastro-esophageal junction. For semantic correctness, do
the authors feel their case series could be better described as containing distal esophageal and proximal gastric perforations?

5) The laparoscopic approach to esophageal perforation has been described many years ago, but has not been widely adopted. What do the authors feel is the next step toward establishing the value of this approach? Must certain aspects of safety be demonstrated? Is more study needed into which patients this approach is appropriate for (validating the algorithm)? What further prospective study is needed?

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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