

Peer Review File

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Reviewer A

contaminating mediastinum

In this article, authors explored sternocleidomastoid (SCM) muscle flaps and emulsified adipose tissue stromal vascular fraction containing adipose-derived stem-cells to treat refractory cervical anastomotic leak contaminating mediastinum. Authors concluded that this new surgical method has achieved good results in the treatment of anastomotic leak. Compared with the traditional thoracotomy, it is a less invasive and feasible surgical approach, which can be used as a supplement to the effective surgical treatment of cervical anastomotic leak contaminating the mediastinum.

I agree that this review is interesting and might be useful. However, authors should review some points:

Comment 1: Abstract is too long and should be reduced

Reply 1: we have modified our text as advised.

Changes in the text: see Page 2, line44-47.

Comment 2: In Methods, authors should clarify their inclusion and exclusion criteria.

Reply 2: we have modified our text as advised.

Changes in the text: see Page 3, line87-90.

Comment 3. A follow-up of 3 months postoperative is too short and, if possible, should be enhanced.

Reply 3: All the included patients healed within 3 months.

Comment 4. In Results, authors cited that “The other 5 patients did not complete the entire procedure due to financial reasons”. Was there an ethical concern about it?

Reply 4: NO

Reviewer B

This is an interesting technique for managing anastomotic leaks which are difficult to heal. My only comment is that the use of Endosponge with vacuum therapy appear to be the way forward with managing these patients so I'm not sure if this invasive technique will be adopted widely.

Reply: We are exploring a new treatment method, which is easy to operate and conducive to widespread promotion.

Reviewer C

Well written paper and described technique that can be a potential approach to consider for this challenging complication. Can you please elaborate more on length of follow up? Did you leave drain and if so, did run into problems with drain blockage with the fat particles?

Comment 1: Can you please elaborate more on length of follow up?

Reply 1: The number of patients included was small, and all healed well within 3 months. After cure, patients were followed up at intervals of 3-6 months.

Comment 2: Did you leave drain and if so, did run into problems with drain blockage with the fat particles?

Reply 2: After completing the whole procedure, the drainage tube was removed after 3-5 days. No fat granules blocked the drainage tube.

Reviewer D

The experience of an attempt to combine SCM flap and SVF infusion for a mediastinal anastomotic leak is described. This paper should be read as a case report (series), as there is no specific comparison group.

Patching a fistula or leak with muscles with good blood flow is common in reconstructive surgery and highly effective. In fact, it is likely that the fistula was cured only by the SCM flap without tSVFem injection. What are your thoughts on this? Please include the Author's views in the Discussion.

The effectiveness of tSVFem cannot be determined from this case series alone, but the fact that the patient progressed without major side effects is one thing that makes it worthwhile.

Comment 1: Patching a fistula or leak with muscles with good blood flow is common in reconstructive surgery and highly effective. In fact, it is likely that the fistula was cured only by the SCM flap without tSVFem injection. What are your thoughts on this?

Reply 1: We have described this in detail in the text (see Page 6, line 180-183)

Reviewer E

The study addresses a difficult problem- cervical anastomotic leaks after McKeown approach. They presented that SCM muscle flap plus emulsified adipose tissue stromal vascular fraction

was successful in 5 patients.

I have the following comments

Comment 1: the introduction needs to be re written as it is redundant.

Reply 1: we have modified our text as advised.

Changes in the text: see Page 3, line70-74.

Comment 2: The technique of SCM needs to be detailed: is the muscle just laid in the abscess cavity or it is anchored to the leak site? This is very important detail.

Reply 2: We have described this in detail in the text (see Page 3, line 101-103).
