

Peer Review File

Article information: <https://dx.doi.org/10.21037/cdt-22-248>

Reviewer A

The authors provide a manuscript on review of management of LSCA during arch repair using frozen elephant trunk (FET). FET has been gaining popularity in arch repair, which enables proximalization of distal anastomosis. LSCA reconstruction remains controversial and management of LSCA is one of the important topics. I appreciate authors' efforts. I would like to thank the authors for sharing their work with us

Comment 1: I recommend adding other LSCA reconstruction techniques as below.

(Intraoperative)

Sutureless telescoping anastomosis using a Viabahn

J Vasc Surg. 2010;51:836-41.

Fenestration of FET accompanied with suture fixation around fenestration site

Eur J Cardiothorac Surg. 2021;59:765-772.

In ref #7, a stent was inserted into the LSCA to prevent endoleak via fenestration.

The above reference performed suture fixation around fenestration site instead.

An end-to-side anastomosis of LSCA with zone 2 distal anastomosis

J Card Surg. 2022;37:2194-2196.

Response 1: Thank you for your suggestions. We have added two additional paragraphs to include the suggested citations.

Changes: Lines 155-175. Two new paragraphs have been added that cite the above citations.

Reviewer B

This is a review paper regarding the methods to manage the left subclavian artery during the total arch replacement with the frozen elephant trunk. The manuscript is concise.

Comment 1: In the "Overview" section, the necessity of left subclavian revascularization is briefly discussed. This reviewer would like to request the authors include several references regarding the prevalence of anatomical variations of the vertebral arteries necessitating left subclavian revascularization.

Response 1: Thank you for your comments. We added an additional paragraph to discuss the variations of the vertebral arteries and included two additional references (Onrat et al. 2021 and Okura et al. 2014).

Changes: Lines 99-107.

Comment 2: In the beginning of the "Intraoperative" section, the techniques of anatomical reconstruction are briefly reviewed. However, there were no descriptions on the use of separate tube grafts, which has been widely used since the report by Kazui et al., and facilitates left subclavian reconstruction through a mid-sternotomy in expert hands. This reviewer would request the authors include some description of this technique.

Response 2: Thank you for your comments. We have added a sentence to describe this approach and additionally cited key work from Kazui (2000 and 2007) as well as Spielvogel's Y-graft approach.

Changes: None

Comment 3: Abstract: last sentence, "atomic" should be "anatomic".

Response 3: Thank you for your comments. We have made this correction.

Changes: Line 32

Comment 4: Preoperative: last sentence; If the carotid-subclavian bypass is performed before total arch replacement with the frozen elephant trunk, coiling of the left subclavian artery origin may not safely be performed because of the risk of coil dropping into the aorta, since there is no stent-graft within the aortic arch.

Response 4: Thank you for your comments. Although it is not likely, it can become dislodged. We have removed this sentence.

Changes: Deleted at line 157

Comment 5: Intraoperative: first sentence; "address intraoperative" should be "addressed intraoperatively".

Response 5: Thank you for your comments. We made this correction.

Changes: Line 139

Comment 6: Intraoperative: last sentence; Please add several other references regarding the fenestrated option of the frozen elephant trunk.

Response 6: Thank you for your comments. Three references described above have been added to this section.

Changes: Lines 99-107.

Reviewer C

Many thanks for the opportunity to review this excellent article which is very timely given the approval of hybrid stent graft devices for arch surgery in the United States. Please make the minor revision

Comment 1: Page 7, para 2, line 2 When preoperative management of the left subclavian artery is not feasible, the LSCA revascularization should be address intraoperative. Please correct the underlined to address intraoperatively.

Response 1: Thank you for your comments. We made this adjustment to the text.

Changes: Lines 140-144.