

Peer Review File

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Reviewer A

After reviewing the available data, I agree with Dr. Wurtz statement in this Editorial that to date there is no reliable technique for tracheal replacement and FCTR should be considered experimental.

Reply: We thank the reviewer for his comment; We agree that there is currently no reliable tracheal substitute. In this setting, we launch an experimental project of tracheal substitute based on a pedicled thoracic flap reinforced by synthetic biocompatible tracheal rings in a sheep model.

Changes in the text: We have stated an additional paragraph at the end of the text (lines 53-55): To develop a reliable tracheal substitute currently remains a challenge of the utmost importance. In this setting, we launch an experimental project of tracheal substitute based on a pedicled thoracic flap reinforced by synthetic biocompatible tracheal rings.

Reviewer B

Your letter exposed a very important misleading. However, although critical, your research should point out the possibility that the authors could consider the timing of the death cases unequally. I suggest underlining the possibility that in some papers, the meant postoperative time frame (that could reasonably be assessed 30 days after surgery) should have been misled by the authors or intended differently.

Please revise the references: the titles have some faults and lacks.

Reply: Thank you for your comments. To avoid any ambiguity in terms of early mortality after surgery, I have replaced “postoperative” mortality (30-day mortality) with “in-hospital mortality” (90-day mortality) in the text. In fact, after revision of the 5 papers this change does not alter the number of deceased patients in the postoperative period.

References. I apologize for the mistakes in the reference section. I expect my corrections are presently correct.

Changes in the text:

Page 1 line 27, 28: replace postoperative mortality by 90-day mortality (in-hospital mortality)
line 30: replace postoperative by in-hospital

Page 2 line 41: replace postoperative by in-hospital
line 46: replace postoperative by in-hospital

Page 2 (reference section)

line 60: how? (spacing deleted)

line 64: Surg.

line 64 Please delete: 2023 <https://doi.org/10.1016/jtcvs.2023.02.012>; and replace by 2024;167:e31-2.

line 65: after Reply please add: from authors:

line 66: after replacement add: with cartilage-reinforced forearm free flaps

line 66: Surg. ; please replace 2023 by 2024;167:e32-3.

line 67: please delete: <https://doi.org/10.1016/jtcvs.2023.10.038>

line 69: After tissues, please replace the colon by à full stop

line 69: Surg.

line 72: Delete the spacing between 2015 and the semicolon: 2015;4:46

line 74: please state: J. 2018;51:1702211.

line 82: Surg.

Table 1

line 2: please replace postoperative deaths by in-hospital mortality

line 3: please replace postoperative mortality (n=7) by Causes of in-hospital mortality (n=7)

Reviewer C

In the letter by Dr. Wurtz, a discrepancy is noted regarding the number of postoperative mortality cases after FCTR performed at the Marie-Lannelongue Hospital. Specifically, the mentioned group has asserted only 4 postoperative deaths in their 2023 response published in JTCVS (DOI: 10.1016/j.jtcvs.2023.10.038). Dr. Wurtz has conducted a review of published literature from the institute, concluding a total of 7 postoperative deaths. The discrepancy is of value to note and should potentially be clarified. A response from the authors regarding this discrepancy would also add value to the discussion. Minor edits to the letter are noted below.

Major comments:

Table 1: The 2013 article by Fabre et al. (citation 4) reports 4 deaths; however, Table 1 only reports 2. Please comment on this difference.

Minor comments:

Table 1: For the reported patients column, the total number of patients reported is a bit confusing in the current format as the final entry under Estephan et al. (citation 8) does not list a number of patients.

Table 1: two articles (citations 5 and 6) appear in the same row under the “Article (date)” column. With the current format presented, separating the two may avoid any unintended confusion.

Reply: Thank you for your comments. I expect that the surgical team of Marie-Lannelongue hospital will provide clarification of the major issues that I have underlined. In your reply, the best way to do this would be to provide the series of 30 patients in the form of a table including the causes of in-hospital and delayed deaths; and status of alive patients (need for permanent stenting/tracheostomy, free of disease..).

Major comments (Table 1: about the 2013 article by Fabre et al).

The 2013 article by Fabre et al. (reference 4) reporting 12 patients shows major discrepancies between Tables and Text: (1) in Table II 4 deaths are stated. Two are in-hospital deaths (patients N°4 and N° 5 having undergone a total tracheal replacement + both main bronchi). The other 2 were delayed deaths from brachiocephalic arterial rupture at 6-month (patient N°11); and lung metastasis at 16-month (patient N°8 : this cause of mortality is only specified in the Follow-Up paragraph); (2) In the Follow-Up paragraph, the authors claim that 8 patients are currently alive, while in the same paragraph they state that 2 additional patients died of cancer recurrence at 6-month. Surprisingly, these 2 patients do not appear in Table II, (Status column).

Moreover, I would like to highlight other weaknesses of this paper (1) Among the 12 patients, 2 receive a forearm free flap without cartilage strut, for the lateral repair of giant TOF (patients 1 and 12): they should have been excluded from the series; (2) The flap ischemia which required a redo procedure has not been mentioned in the Text and/or in Table II, (Major Post-op Complications column), but only in the discussion section (probably patient 3 who finally received an anterolateral thigh free flap).

Thus, our analysis shows that in 2013 there were 6/10 deceased patients (60%) : 2 in-hospital deaths; 3 at 6-month and 1 at 16-month.

Finally, our analysis only focused on in-hospital mortality reports 2 cases that are stated in our article Table I, (column III cell1).

Additionally, you feel that the total number of patients reported is a bit confusing. In fact, with the 5 available articles, the data analyzed are those of patients who underwent a FCTR for miscellaneous indications from August 2004 to Dec 2017 [4-7]; and those who underwent a similar procedure for adenoid cystic carcinoma between 2017 and 2019 [8]: overall 23 patients. The data of “miscellaneous but no ACC” patients between 2017 and 2019; and those of all patients subsequently operated on up to 2023 are lacking (overall n=7).

Change

Page 1 line 38 After [4-8]., please add the sentence as follows:

The data analyzed are those of patients who underwent a FCTR for miscellaneous indications from August 2004 to Dec 2017 [4-7]; and those who subsequently underwent a similar procedure for adenoid cystic carcinoma between 2017 and 2019 [8]: overall 23 patients.

Table I. Minor comments

The number of ACC patients reported by Estephan et al. is now stated (n=15), and detailed at the bottom of Table 1

A line now separates references 5 and 6

Changes in Table 1

Line 2: in-hospital mortality

Line 3: Causes of in-hospital mortality

Column III, cell 1: Please replace Pulmonary by Respiratory

Row Etienne et al. Column II, cell 3 please add: no additional patients

Column II, cell 5: Please replace: Overall patients with adenoid cystic carcinomas since 2004 were reported by: Reported patients with adenoid cystic carcinomas from 2007 to 2019 (n=15)*

At the bottom of the Table, please add:

*10 patients from 2007 to 2017; and 5 patients between 2017 and 2019