

Peer review file

Article information: <http://dx.doi.org/10.21037/jtd-20-1866>

Reviewer A

Comment 1: “Statement at line 71 should be moved in the methods.”

Reply 1: Thanks for your comments, I have moved the statement at line 71.

Changes in the text: I have deleted the statement at line 71.

Comment 2: “Please provide some information about the demographic of population in the area of your institution and some hypothesis for the changing in incidence of dissection that you observed.”

Reply 2: Thanks for your comments, I’m sorry about that I have not described the demographic of population in the area of our institution. I have added some information about this and the hypothesis for the changing in incidence of dissection.

Changes in the text: I have added this part from line 208-211.

Comment 3: “Please provide some information about the incidence of frozen elephant trunk and which kind of prosthesis you used.”

Reply 3: Thanks for your comments, I have added the details of FET in line 131.

Changes in the text: I have added the details of FET in line 131.

Comment 4: “The manuscript needs an extensive revision of the language.”

Reply 4: Thanks for your comments, I have extensively revised the language of the manuscript.

Changes in the text: I have revised the language in line 48-50,52,54,57,83,85-86,102-103,118,206,214,255.

Comment 5: “In the statistical paragraph, you stated that a Univariate analysis was used, but the results are not illustrated. Moreover, the statistical analysis should be exposed more in detail.”

Reply 5: Thanks for your comments, I’m sorry that my statement made you misunderstood. No Univariate analysis was used in this study.

Changes in the text: I have deleted the statement at line 138-139.

Comment 6: “Deep hypothermia up to 20 grade is normally extreme and not necessary in repair for type A dissection: please provide an explanation for this finding and why did you not change your strategy during the time.”

Reply 6: Thanks for your comments, I agreed with your opinions. Moderate hypothermia was applied in our center recently based on the planned length of circulation arrest, but during 2002-2018, the strategy was stable.

Changes in the text: No change.

Reviewer B

Comment 1: “Overall there are multiple grammatical errors in the manuscript. Those need to be addressed.”

Reply 1: Thanks for your comments, I have extensively revised the language of the manuscript.

Changes in the text: I have revised the language in line 48-50,52,54,57,83,85-86,102-103,118,206,214,255.

Comment 2: “Was there any difference in surgical outcomes between the surgeons?”

Reply 2: Thanks for your comments. Actually there is, but the differences were exist because of training process, which means the surgical outcomes were relatively adverse in surgeons with limit surgical experiences in their early stage, but the results would better after training.

Changes in the text: No change.

Comment 3: “What was the reason of increased frequency of retrograde cerebral perfusion? Surgeon’s preference?”

Reply 3: Thanks for your comments. The results of RCP and ACP hadn’t revealed differences, the same as bid data from international database and meta-analysis. The reason of increased frequency of RCP was surgeon’s preference, which would simplify the procedure in the case of RCP without exposure the axillary artery and it would avoid additional risk of axillary artery.

Changes in the text: No change.

Comment 4: “What was your surgical indication for patients with organ malperfusion, such as coma, stroke, mesenteric ischemia, or coronary obstruction? Among 105 patient who did not receive surgery, were there any patients you turned down the operation because of that?”

Reply 4: Thanks for your comments. For patients without surgery, the main etiology was rupture before surgery. Most patients with organ malperfusion were received central repair during 2002-2018. From 2019, we have tried some interventional methods for reperfusion first through endovascular approach, but we still have limit experiences.

Changes in the text: No change.

Comment 5: “What was the reason of increased deep sternal wound infection in the current era?”

Reply 5: Thanks for your comments. The possible reason was that some patients with prolong postoperative treatment duration developed SSI, but this part of patients suffered early death in the early stage.

Changes in the text: No change.

Comment 6: “The figure legends for Figure 1 and Figure 2 were vice versa.”

Reply 6: Thanks for your comments, it was my fault to reverse the legends for Figure 1 and Figure 2

Changes in the text: I have fixed this error.

Reviewer C

Comment 1: “Do you have any strategy to manage patients who developed malperfusion syndrome? This is a critical situation during TADD which determines operative outcomes. Also, this mostly depends on duration from arrival at hospital to operating theatre.”

Reply 1: Thanks for your comments. Most patients with organ malperfusion were received central repair during 2002-2018. From 2019, we have tried some interventional methods for reperfusion first through endovascular approach, but we still have limit experiences. The duration from arrival at hospital to OR was shorter in the current stage, but we still can be more quickly to central repair.

Changes in the text: No change.

Comment 2: “You need to summarize outcomes in patients with preoperative malperfusion syndrome.”

Reply 2: Thanks for your comments. Malperfusion is the major risk factor for adverse outcomes in TAAD patients, central repair is still first line approach in our center. In other retrospective reviews, we have observed and analyzed the outcomes of malperfusion patients, which was not the key part in this research. Due to the length of the article, we can't describe and discuss in details.

Changes in the text: No change.

Comment 3: “What is the trend or any change regarding arterial cannulation site during your experience?”

Reply 3: Thanks for your comments. During our experience, the proportion of cases using femoral artery cannulation and both axillary femoral artery cannulation has increased, while the proportion of simple axillary artery cannulation has decreased.

Changes in the text: No change.