Author's response to reviews

Title: A modified root reinforcement technique for acute aortic dissection with a weakened aortic root: a modified Florida sleeve technique and two cases report.

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Author's response to reviews: see over
Reviewer's comments

Reviewer 1: Eduardo Saadi

1. Do you always cannulate the axillary and the femoral arteries?

Yes, we usually cannulate the axillary and the femoral arteries for the surgery of acute type A aortic dissection because we presume that double arterial cannulation is more effective and time-saving for temperature regulation and tissue perfusion than single arterial cannulation.

2. When do you decide to do a complete root replacement (valve sparing or not)? What do you consider to be root pathology? What is your diameter size cut point?

We briefly described our policy for root replacement in my manuscript (page 6, line 4-11). Because we think that the diameter of the aortic root strongly correlates with the risk of re-expansion or redissection, we use the size of the aortic root as the criteria for root surgery. If there is an ectatic root over 55mm diameter or irreparable root such as intimal tear in the aortic root, root replacement is indicated. In a younger or patient with connective tissue disease, our size criterion for root replacement is over 50mm diameter.

3. The method of measurement of the graft size is not clear.

We think that the graft size is not a critical point because of a full vertical slit of a graft made for the right coronary, which was left open without reconnection after seating a graft. After selection a cylindrical graft for ascending aorta replacement by sizing the sino-tubular junction and the distal ascending aorta, we cut off about 5 cm length from a selected graft and reused it for external wrapping of the aortic root.

4. You mentioned using 5-0 Prolene with Teflon. Do you use any additional Teflon felt to reinforce suture or biologic glue?
No, we didn’t use Teflon felt externally or internally. Also we didn’t use biologic glue to fix both dissected layers. However, we reinforced proximal suture line using multiple 4–0 polypropylene sutures with Teflon pledgets.

5. Isn’t dissection of the coronary ostium a risk in this technique? We need longer follow up of the patients.

We think that our technique may not induce a coronary artery dissection, but may cause a coronary artery obstruction if not a sufficient opening area or distance from the aortic annulus to the left main trunk. However, we didn’t experience any coronary problems and agree that longer follow up is warrant.

Reviewer 2: Henrique Murad

1. This paper describes a modification of the Florida sleeve operation for aortic dissection. It is very similar to the modification proposed by Komoda et al., for this operation. The title has to change because it gives to the reader an impression that we are dealing with a new surgical technique.

Thank you for your comments. We fixed our manuscript.

2. In the second case there is a diseased aortic valve that was replaced. A better discussion has to be made on the advantages of using this technique over the use of composite tube graft to replace the aortic root and the valve.

In the situation of ascending aortic aneurysm with normal root and an abnormal or calcified aortic valve, separate ascending aorta-aortic valve replacement are probably the easier and
quicker approach than composite graft replacement because the native aortic valve or coronary ostia needs to be reimplanted.