Reviewer's report

Title: Open triple-branched stent graft placement for the surgical treatment of acute aortic arch dissection

Version: 1 Date: 29 May 2012

Reviewer: Naomichi Uchida

Reviewer's report:

This paper is retrospective study about the primary experience of open triple-branched stent graft placement for acute aortic arch dissection on 13 patients. All patients were discharged from hospital. Their computed tomographic scans postoperatively showed that all stent grafts were fully opened and not kinked, there was no blood flow surrounding the triple-branched stent graft. They concluded that Open triple-branched stent graft placement is a new effective technique for total arch reconstruction in acute arch dissection.

I think this paper is informative and suitable for the paper after revision concerning several problems as follows;

1. This technique already has been reported by Shimamura “Hybrid endovascular aortic arch repair using branched endoprosthesis: the second-generation "branched" open stent-grafting technique” in J Thorac Cardiovasc Surg. 2009 Jul;138(1):46-52; discussion 52-3. You should refer that paper and discuss on the differences between your study and Shimamura et al study.

2. The tapered main graft was 145 mm in length, 30 mm in proximal diameter, and 26 mm in distal diameter. At its proximal end, there was a 10-mm-long stent-free sewing Dacron tube. Concerning graft design, some problems remain. How did you determine the graft diameter and length? Had same graft size had been used in all patients?

3. The first sidearm graft was 35 mm long and 14 or 16 mm in diameter. Both the second and third sidearm grafts were 25 mm long and 12 or 14mm in diameter. You should mention how to determine graft size on triple sidearm graft.

4. In addition, you should discuss the new tear on main stent graft 26mm in distal diameter and triple side arm stent graft 12 to 16mm in diameter.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.