

Replacement of Moderately Dilated Ascending Aorta is Safe in Patients Undergoing Other Heart Surgery

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Background: Controversy exists regarding the need to replace the moderately dilated ascending aorta when another cardiac procedure is the primary indication for surgery. The new AHA/ACC guidelines state that ascending aortic aneurysms measure 45 to 50 mm requires intervention. Previous studies demonstrated an increased risk the combined procedure.

Objective: To investigate the results and operative risk when replacing the ascending aorta due to moderate dilatation while performing a concomitant cardiac procedure.

Methods: Between 5/2006 and 10/2010, 193 patients underwent surgery of ascending aorta. Sixteen patients had an ascending aorta measuring 45 to 50 mm with a tricuspid aortic valve and underwent cardiac surgery for another indication. In all patients the ascending aorta was replaced with an interposition graft using deep hypothermic circulatory arrest and retrograde cerebral perfusion.

Results: Mean age was 65 ± 9 years (range 45-81). The mean ascending aortic diameter was 47 ± 2 mm. Nine patients underwent concomitant AVR, Six patients AVR and CABG and one patient CABG only. Mean circulatory arrest time was 15 ± 2 min. There was no operative mortality. Median hospital stay was 7.5 days. Post operative complications included re-exploration due to bleeding in one patient and atrial fibrillation in 3 patients. No low cardiac output state or neurological deficit (CVA or TIA) were observed. Follow up demonstrated all patients to be alive. Mean New York Heart Association (NYHA) was 1.5 ± 0.5 . None of the patients was re-hospitalized due recurrent aneurysm or dissection.

Conclusion: Replacement of a moderately dilated ascending aorta while performing another cardiac procedure is safe and associated with negligible complications. The low procedural risk should be out weighted against the risk of leaving an aortic aneurysm requiring life- long follow up and possible re-intervention due to complications associated with a dilated ascending aorta.