

P30. The Stentless Bioroot For Treatment Of Complex Aortic Valve-ascending Aortic Pathologies: Experience Of 400

Patients

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OBJECTIVES: To determine the short and midterm results of stentless full root xenografts for treatment of complex aortic valve-ascending aortic disease.

METHODS: From 11/1999 to 6/2008, 405 adult patients underwent the modified Bio-Bentall procedure using the Medtronic Freestyle xenograft in a full root technique. Followup was 98.8% complete.

RESULTS: Mean patient age was 70.0 ± 9.9 (range 17–93). Indications for surgery were annulo-aortic ectasia or aortic aneurysm, aortic dissection type Stanford A, and acute endocarditis among others. 162 patients (40.5%) had concomitant procedures including coronary artery bypass grafting (n=120), mitral valve reconstruction/replacement (n=14), and aortic arch surgery (n=51). Mean operative time was 223 ± 83 min with a clamp time of 95 ± 29 min. Immediate postoperative renal insufficiency requiring dialysis occurred in 7.0% (n=28). Perioperative permanent neurological impairment was diagnosed in 2.5% (n=10). Hospital mortality was 7.8%. Total follow up was 941.9 patient-years with a mean follow up of 2.4 years. At 5 years of follow up Kaplan Meier analysis showed a survival of 77.3%. Freedom from endocarditis was 98.5%, and freedom from structural valve deterioration was 100.0%. The hemodynamic performance was excellent with no sign of aortic regurgitation at any time during followup.

CONCLUSIONS: The complex operative technique using the stentless bioroot can be performed with low operative risk and good 5 year follow up results. In view of the favourable results it seems to be justified to apply this method more frequently and also in high risk patients.