

Aortic Valve Preservation Surgery

Basheer Sheick-Yousif¹, Ami Shinfeild¹, Salis Tager¹, Dan Loberman¹, Sergey Priesman²,
Alexander Kogan¹, Ehud Raanani¹

¹ Cardiac Surgery Department, ² Department of Anesthesiology, Chaim Sheba Medical
Center, Ramat Gan, Israel

Objective: An overview of our experience and outcomes of patients who underwent aortic valve preserving/sparing procedures for various pathologies associated with ascending aorta and aortic valve diseases, including aortic aneurysm, aortic dissection and bicuspid aortic valve.

Patients and methods: From January 1996 to November 2008 305 patients with a diseased ascending aorta or aortic valve underwent an aortic valve preservation surgery. 146 pts had aortic aneurysm, 131 had type A aortic dissection and 20 pts had bicuspid AV (BAV) pathology. Eight pts had AV regurgitation secondary to other pathologies including SBE (2 pts) and aortic valve prolapse (6 pts). Mean age was 60 years (range 21-81 years), 70% of the patients were males. Thirty six patients were marfans.

Results: Fifty six pts underwent the reimplantation technique, 111 patients underwent the remodeling technique. Twenty one pts underwent repair of BAV. The remaining (118 pts) underwent other sparing techniques of the aortic root and valve. Overall 30 days mortality was 6.5% (20 pts out of 305). Recurrence of AI more than 2+ occurred in 13 patients. Among Marfan Patients, recurrence of AI more than 2+ occurred in two pts, both underwent remodeling and both had dissection of the ascending aorta involving the sinuses of Valsalva. Reoperation due to Severe AI was needed for 8 pts, all from the remodeling group and all were non marfans.

Conclusions: Excellent early and midterm results can be achieved by aortic root preserving procedures and concurrent aortic valve leaflet repairs when appropriately selected for a diverse class of pathologies.