

C14. Reoperation After The Ross Procedure

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OBJECTIVES: To study 1) indications for reoperation after Ross operations and 2) pathologies, procedures, and outcomes.

METHODS: From 9/1994 to 1/2008, 43 patients underwent first-time valve-related reoperation after Ross procedures, the longest 12 years later. Mean follow-up was 4.8 ± 4.0 years, with 10% of patients followed beyond 11 years. At original operation, 21% had a history of endocarditis, 14% previous valve replacement, and 49% a bicuspid aortic valve. Original implant technique was full root replacement in 88%.

RESULTS: Aortic indications (n=33) included root and ascending aorta dilatation (48%), valve dysfunction (30%), endocarditis (12%), and technical failure (6%). Regurgitation was moderate to severe in 97%. Neither bicuspid valve nor root implantation was associated with dilatation ($P \geq .8$). Pulmonary indications (n=17) were allograft degeneration (76%), endocarditis (12%), and Ross reversal (12%). Reoperative procedures: Aortic valve repair was performed in 2 and replacement in 31; 9 were combined with pulmonary valve replacement. Of 17 pulmonary valve replacements (isolated in 8), allograft replacement was performed in 11 and Ross reversal in 6. Concomitant ascending aortic procedures were performed in 20 and isolated procedures in 2. Outcomes: There were no postoperative deaths and little morbidity. During follow-up, there were no deaths, 1 reoperation for endocarditis, and 2 non-valve-related reoperations.

CONCLUSIONS: Reoperation up to 12 years after a Ross procedure is most often autograft related, with dilatation and regurgitation being primary indications, and is less often related to allograft degeneration. Reoperation can be performed safely, and Ross reversal is a promising way to prevent loss of a second native valve.