

Rheumatic and Non-Rheumatic Mitral and Aortic Valve Repair in Young, Underdeveloped Population

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Objective: Valve repair, especially in young rheumatic patients, still carries the worst results due to valve deformity and low surgical experience in western countries, and remains particularly difficult to treat with high failure rate, but it is the only rational alternative in a population in which anticoagulation is difficult. We present our early experience in a hospital for underdeveloped population in Sudan.

Methods: From April 2007 through May 2010, 299 patients (58% females, mean age 21.4 years \pm 11.33) out of 2010 valve surgeries performed underwent mitral (276/1463) or aortic (23/547) valve conservative surgery (14.8%, in the last year the percentage rose up to 50%). The aetiology was rheumatic in 209 patients (69%) and degenerative/infected in the others (stenosis in 74, regurgitation in 216 and both in 9 cases). Severe congestive heart failure was present in 62%. Reparative procedures included different techniques. Echocardiographic and clinical follow-up was performed at 1,6,12 and 24 months.

Results: Operative mortality was 2.3% (7 patients). Follow-up was available for 85.9% the survived. The reoperation rate was 7.2% (20 pts) in mitral repair, 5 early and 15 late failures, 12 in regurgitation (6.3 mo), 8 in stenosis (8.8 yrs), all rheumatic valves. No re-do operations in aortic repair. No late deaths occurred. Among the controlled survivors, 89% had no or trivial mitral regurgitation and were in NYHA functional class I.

Conclusions: Valve repair in young patients should be performed when technically feasible providing satisfactory (better in stenosis) early results, to maximize survival and reduce morbidity. In rheumatic patients progression of disease is the most important risk factor for reoperation.