

 VALVULAR HEART DISEASE

ANALYSIS OF 1000 CONSECUTIVE CASES OF MITRAL VALVE REPAIR CASES WITH DYNAMIC ANNULAR SIZING AND NO LEAFLET RESECTION

ACC Oral Contributions

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Background: Leaflet resection as a necessary component in mitral valve repair (MVRP) is becoming controversial. The objective of this study was to determine the long-term outcome of a technique of mitral valve repair that did not include leaflet resection.

Methods: Between 1989 and 2008, 1000 consecutive pts underwent MVRP using dynamic annular sizing with flexible annuloplasty rings (ANN) and no leaflet resection. Data was recorded prospectively in a custom database with IRB approval.

Results: There were 522 (52.2%) males. The mean age was 62.5 (range 20-93). Preop rhythm was afib in 304 (30.4%). Previous CAB was present in 76 (7.6%). Pathology was myxomatous in 344 (34.4%), degenerative 132 (13.2%), combined myxomatous/degenerative 167 (16.7%), ischemic 130 (13%), rheumatic 64 (6.4%), other 160 (16%). Leaflet involved was anterior 148 pts (14.8%), posterior 411 (41.1%), both (AP) 79 (7.9%). Procedures were PTFE chordal replacement in 512 pts (51.2%), isolated ANN, 367 (36.7%), other 121 (12.1%). Perioperative mortality for isolated repair in 515 pts (51.5%) was 8/515 (1.6%). Concomitant procedures were CAB 240 (24%) and AVR/TVRP 121 (12.1%) and perioperative mortality was 29/483 (6.0%) ($p=0.0083$). Survival at 10 yrs for all groups $p=NS$. Predictors of mortality (Cox Analysis) were age ($p<0.0001$), sex ($p=0.01$), ef ($p=0.01$), prior CAB, ($p=0.013$), ischemic pathology ($p=0.0093$), and concomitant AVR, ($p=0.046$). Freedom from reoperation at 10 yrs by Kaplan-Meier was similar overall, 90%; by pathology: myxomatous, 95%; degenerative, 99%; combined, 96%; ischemic, 91%; rheumatic, 70%; $p=0.0443$. By leaflet: Anterior, 86.6%; Posterior, 88.4%, AP 86.8%, $p=0.95$. Post-op echo in 821 pts showed freedom from 3 or 4+ MR was 93.2% at 10 years and by pathology was: myxomatous, 92%; degenerative 97%; combined 95%, ischemic, 88%, rheumatic, 88%; $p=NS$. By leaflet: anterior, 88.8%, posterior, 90.0%, AP, 84.0%, $p=0.873$, Factors predictive of reoperation were age ($p=0.0013$), prior MI ($p=0.0017$) and simple repair ($p=0.012$).

Conclusions: The use of dynamic annular sizing with leaflet preservation has produced high reparability and durable long term **Results:**