

P74. Long-term Results Of Mitral Valve Repair With The Duran Flexible Ring

Yukikatsu Okada; Michihiro Nasu; Hiroshi Fujiwara; Yu Shomura
Kobe City Medical Center General Hospital, Kobe, Japan

OBJECTIVES: A flexible ring is theoretically considered to be a prosthetic ring to preserve the physiological function of the mitral annulus after repair. We reviewed our experience of mitral valve repair with the Duran flexible ring and analyzed the mitral annulus by 3D echo 10 years after surgery.

METHODS: Between 1994 and 2006, 414 patients underwent mitral valve repair with the Duran flexible ring. Mean age was 58 ± 13 years; 59 % were male. Three surgical procedures including quadrangular resection of posterior leaflet (n=318), chordal reconstruction with expanded PTFE for anterior leaflet prolapse (n=184), and pericardial patch grafting (n=25) were used. Mean follow-up was 6.8 ± 3.6 years and total follow-up, 2796 patient-years. Six patients of 10-year survivors were selected to analyze their mitral annulus motion by 3D echocardiography. The motion of the mitral annulus with the Duran ring was compared to those of normal volunteers.

RESULTS: There were six hospital deaths (1.4%). At 10 years, the actuarial survival, freedom from reoperation, and freedom from MR (>moderate) were $87\pm 2\%$, $95\pm 2\%$ and $95\pm 2\%$, respectively. There were no significant differences in % reduction of circumferential length and annulus area of the mitral annulus during the cardiac cycle between the patients with the Duran ring and normal volunteers (15%, 28% versus 13%, 23%).

CONCLUSIONS: Mitral valve repair using the Duran flexible ring is associated with low operative mortality and morbidity, and low rates of recurrent MR during the first decade of follow-up. The mitral annulus with the Duran flexible ring retains physiological flexibility 10 years after surgery.