

**Kurlansky PA, Williams DB, Traad EA, Carrillo RG, Schor JS, Zucker M, Ebra G. The influence of coronary Artery Disease on quality of life following mechanical valve replacement, J Heart Valve Dis, 2004;13:260-71**

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**BACKGROUND AND AIM OF THE STUDY:** Coronary artery disease (CAD) is known to impact negatively on long-term survival following valve replacement (VR). However, its influence on quality of life (QOL) remains undefined in patients with mechanical VR.

**METHODS:** A total of 318 consecutive patients undergoing VR with the St. Jude Medical (SJM) mechanical valve were matched for age and gender with 318 patients who had VR (SJM valve) and coronary artery bypass grafting (VR+CABG). The VR group comprised 197 men and 121 women; the VR+CABG group also comprised 197 men and 121 women. The mean age of all patients was 66.0 +/- 8.0 years (range: 40-87 years). The Short Form-36 (SF-36) health survey was administered to all survivors at follow up examination.

**RESULTS:** Operative mortality was comparable between groups (4.7% for VR, 7.5% for VR+CABG;  $p = 0.186$ ). Hospital complications were also similar, except for reoperation for bleeding ( $p = 0.049$ ). The mean follow up was 6.0 years for VR patients and 4.7 years for VR+CABG patients. Actuarial survival was significantly better in VR patients than VR+CABG patients (79.4 +/- 2.4% versus 75.0 +/- 2.7% at five years; 58.6 +/- 4.3% versus 47.5 +/- 4.5% at 10 years;  $p = 0.018$ ). The equality of survival distribution was significantly different ( $p = 0.008$ ). Multivariate analysis identified CABG as a predictor of late mortality ( $p = 0.003$ ) but not of late QOL. QOL was similar on the eight health scales and physical health (44.5 +/- 10.3 versus 45.5 +/- 10.7) and mental health (52.4 +/- 9.8 versus 52.5 +/- 10.1) summary components, respectively. Age ( $p = 0.004$ ), time from surgery to SF-36 administration ( $p = 0.007$ ) and gender ( $p = 0.029$ ), but not CABG, were significantly associated with QOL as assessed by the SF-36.

**CONCLUSION:** CAD is a predictor of late mortality after mechanical VR. However, provided CABG is performed concomitantly with VR, the patient's longterm QOL appears to return to that expected for the general population.