

**Kurlansky PA, Williams DB, Traad EA, Carrillo RG, Schor JS, Zucker M, and Ebra G. The valve of choice in elderly patients and its influence on quality of life: a long-term comparative study. J Heart Valve Dis, 2006;15:180-190**

Miami Heart Research Institute, Miami, Florida 33137, USA.

**BACKGROUND AND AIM OF THE STUDY:** Mechanical heart valves are preferred for younger patients in order to avoid valve structural deterioration, but bioprosthetic valves are favored for older patients to avoid long-term anticoagulation. With increasing patient longevity, controversy persists regarding the valve of choice in the 65- to 75-year-old population. With improving patient survival, long-term quality of life (QOL) is a critical element in helping to resolve this controversy. **METHODS:** A retrospective analysis was conducted of 1,104 consecutive patients, aged 65-75 years, who underwent valve replacement between July 1976 and December 1999. Valves implanted were either a Carpentier-Edwards (CE) porcine bioprosthesis (596 patients) or a St. Jude Medical (SJM) mechanical valve (508 patients), with and without concomitant coronary artery bypass grafting. QOL was assessed using the Short Form (SF-36) Health Survey for both groups at the time of follow up, which was 98.2% complete. Comparable patient groups were analyzed within quintiles by propensity score analysis. **RESULTS:** Operative mortality was 9.4% (n = 56) for CE patients, and 5.3% (n = 27) for SJM patients (p = 0.014). Propensity score analysis revealed no significant difference in operative mortality between groups in any of the five quintiles. Actuarial survival for hospital survivors favored SJM patients (p = 0.005). However, when compared within quintiles, there was no significant difference between groups. QOL summary scores were significantly higher for physical health (p = 0.007) for SJM patients, but similar between valve groups for mental health. Comparison within quintiles revealed no significant difference between the groups in either area. **CONCLUSION:** When comparing the outcomes of mechanical versus bioprosthetic valve replacement, considerable care must be exercised to ensure the clinically relevant similarity of groups. When evaluating comparable patient groups, there was no advantage in either survival or QOL for patients aged 65-75 years receiving a CE or SJM valve.