

Kurlansky PA, Dorman MJ, Galbut DL, Moreno NL, Traad EA, Carrillo RG, Zucker M, Sanchez L, Ebra G. Bilateral internal mammary artery grafting in women: a 21 year experience. Ann of Thorac Surg 1996;62:63-69

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BACKGROUND. Coronary artery bypass grafting traditionally has carried a higher mortality rate in women than in men. It remains the leading cause of death in women despite major advances in diagnosis and treatment over the past 2 decades. **METHODS.** A retrospective analysis was conducted to identify risk factors that adversely influence hospital mortality, morbidity, and long-term clinical results in women undergoing bilateral internal mammary artery grafting. From January 1972 through October 1994, 327 consecutive women received bilateral internal mammary artery grafts and supplemental vein grafts. Patient age ranged from 32 to 84 years (mean, 65.7 years). There were 262 patients (80.1%) with three-vessel disease; 71 (21.7%) had substantial (> 50%) stenosis of the left main coronary artery, 65 (19.9%) had a moderately reduced (0.30 to 0.50) ejection fraction, and 11 (3.4%) had a severely reduced (< 0.30) ejection fraction. Preoperatively, 316 patients (96.6%) were in New York Heart Association class III or IV. **RESULTS.** There were 1,016 coronary artery grafts (mean, 3.1 per patient). The overall hospital mortality rate was 3.4% (11 of 327). Postoperative complications included myocardial infarction in 18 patients (5.5%), stroke in 5 (1.5%), pulmonary insufficiency in 11 (3.4%), reoperation for bleeding in 7 (2.1%), and sternal infection in 8 (2.4%). Independent predictors of operative death were postoperative cardiac arrest ($p < 0.001$), use of intraaortic balloon pump ($p < 0.001$), and reoperation for bleeding ($p < 0.050$). Follow-up was completed on 316 hospital survivors (100%) and ranged from 6 months to 21 years (mean, 5.1 years). Actuarial survival (mean \pm standard error of the mean) was 90.5% \pm 1.9% at 5 years and 65.6% \pm 6.1% at 10 years. At follow-up, 252 patients (94.0%) were asymptomatic in New York Heart Association class I, and 12 (4.5%) were in class II. **CONCLUSIONS.** This longitudinal study demonstrates that bilateral internal mammary artery grafting, though technically demanding, can be achieved in women with low hospital mortality and morbidity rates. Patients experienced reduced late cardiac events, excellent functional improvement, and enhanced long-term survival.