

Kurlansky P, Williams DB, Traad EA, Carrillo RG, Schor JS, Singer S, Zucker M, Ebra G. Arterial Grafting results in reduced operative mortality and enhanced long-term quality of life in octogenarians. *Ann Thorac Surg* 2003;76:418-27.

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BACKGROUND: Despite well-established benefits of arterial (ART) grafting, surgeons have been reluctant to use this conduit in octogenarians. This study explores the influence of arterial revascularization on operative and long-term outcomes of coronary artery bypass grafting surgery. **METHODS:** A retrospective analysis was conducted of 987 consecutive patients 80 years of age or older who underwent isolated coronary artery bypass grafting between January 1989 and November 2000. Patients with saphenous vein graft only (SVG; n = 574) were compared with those receiving arterial and saphenous vein grafts (ART+SVG; n = 413). Mean follow-up for SVG patients was 3.8 years (range, 4 months to 12.6 years) and 98.6% complete, and mean follow-up was 3.1 years for ART+SVG patients (range, 2 months to 11.2 years) and 97.3% complete. **RESULTS:** Patients with SVG had a significantly higher (p = 0.009) operative mortality (11.1% versus 6.3%) and significantly longer postoperative length of stay (12.9 versus 10.7 days; p = 0.002) than ART+SVG recipients. More ART+SVG than SVG patients were free of all postoperative complications (290 of 413; 70.2% versus 372 of 574; 64.8%; p = 0.086). Multivariable analysis identified SVG as an independent predictor of operative mortality (p = 0.014) and late mortality (p = 0.040). When patients were matched by equivalent propensity scores to receive SVG only, operative mortality was higher for SVG patients in four of the five quintiles. At 10 years, 97.0% +/- 1.2% of SVG and 92.9% +/- 3.7% of ART+SVG current survivors were free of all late major adverse cardiac events (p = 0.565), and 95.5% of SVG patients and 97.5% of ART+SVG patients were in Canadian class 1 or 2 (p = 0.162). On the SF-36 quality-of-life assessment, ART+SVG patients scored significantly higher than both SVG patients and age-adjusted normal subjects. Physical health summary component scores were 36.8 +/- 11.0 for SVG and 41.0 +/- 10.3 for ART+SVG (p = 0.001). Mental health summary scores were comparable for the two groups. **CONCLUSIONS:** Arterial grafting confers an operative survival benefit, and an enhanced long-term quality of life in elderly patients.