

Long-term outcomes of endoscopic vein harvesting after coronary artery bypass grafting

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Background: Use of endoscopic saphenous vein harvesting has developed into a routine surgical approach at many cardiothoracic surgical centers. The association between this technique and long-term morbidity and mortality has recently been called into question. The present report describes the use of open versus endoscopic vein harvesting and risk of mortality and repeat revascularization in northern New England during a time period (2001 to 2004) in which both techniques were being performed.

Methods: From 2001 to 2004, 8542 patients underwent isolated coronary artery bypass grafting procedures, 52.5% with endoscopic vein harvesting. Surgical discretion dictated the vein harvest approach. The main outcomes were death and repeat revascularization (percutaneous coronary intervention or coronary artery bypass grafting) within 4 years of the index admission.

Results: The use of endoscopic vein harvesting increased from 34% in 2001

to 75% in 2004. In general, patients undergoing endoscopic vein harvesting had greater disease burden. Endoscopic vein harvesting was associated with an increased adjusted risk of bleeding requiring a return to the operating room (2.4 versus 1.7; $P=0.03$) but a decreased risk of leg wound infections (0.2 versus 1.1; $P<0.001$). Use of endoscopic vein harvesting was associated with a significant reduction in long-term mortality (adjusted hazard ratio, 0.74; 95% confidence interval, 0.60 to 0.92) but a nonsignificant increased risk of repeat revascularization (adjusted hazard ratio, 1.29; 95% confidence interval, 0.96 to 1.74). Similar results were obtained in propensity-stratified analysis.

Conclusion: During 2001 to 2004 in northern New England, the use of endoscopic vein harvesting was not associated with harm. There was a nonsignificant increase in repeat revascularization, and survival was not decreased.

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