

Financial impact of endoscopic vein harvest for infrainguinal bypass

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Objective: The purpose of this study was to determine the financial and clinical impact of endoscopic saphenous vein harvest for lower extremity bypass.

Methods: The charts of all patients who underwent elective infrainguinal bypass with saphenous vein since the authors began using endoscopic harvest were analyzed, and the data was compared with their concomitant series of conventionally harvested bypasses. Wound complications were classified as cellulitis (I), an open/draining wound (II), or threatened/exposed graft (III). Actual hospital costs were analyzed in a subset of 84 patients without excessive preoperative stay or additional major inflow or flap procedures, and the financial data was converted to 2001 US dollars.

Results: From March 1999 to December 2001, 242 bypasses were performed with open (n = 134) or endoscopic (n = 108) vein harvest techniques. Overall (34.1% versus 20.4%; $p < .02$)

and class II (15.9% versus 6.5%; $p < .03$) wound complication rates and length of stay were significantly greater in the OPEN group. Financial subset analysis revealed a significant reduction in total cost (\$6203 + \$3326 versus \$7456 + \$3186; $p < .01$) in the ENDO versus the OPEN group. Readmissions for wound complications were more common in the OPEN versus the ENDO group (11.4% versus 4.1%; $p < .03$), resulting in an additional total cost of \$204,557 versus \$23,797, respectively. Patency and limb salvage at a mean of 7.1 months (range, 1 to 32 months) did not differ.

Conclusion: Endoscopic saphenous vein harvest results in a cost savings of more than \$1200 per procedure during hospitalization and of almost \$2200 per procedure including the costs of readmission. This is primarily from a shortened length of stay, a decreased rate of major wound infections, and a reduction in the need for early readmission.

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