

## Endoscopic versus open saphenous vein harvest for femoral to below the knee arterial bypass using saphenous vein graft

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**Background:** Although the use of endoscopic vein harvest in coronary artery bypass grafting is accepted, few studies have documented the implementation of EVH in peripheral vascular disease surgery. Gazoni et al hypothesized that EVH improves outcomes compared with open vein harvest (OVH) in patients undergoing femoral to below the knee arterial bypass surgery.

**Methods:** The charts of 144 consecutive patients undergoing infrainguinal bypass surgery over the course of 27 months were reviewed. A femoral to below the knee arterial bypass with saphenous vein was done in 88 patients (29 had EVH, 59 had OVH). The preoperative characteristics evaluated were age, gender, renal function, history of diabetes, hypertension, tobacco use, and previous infrainguinal bypass surgery on the affected side. End points included wound complications, length of hospital stay, operative time, angiographic and operative interventions for graft occlusion, patency rates, limb salvage, acute renal failure, myocardial infarction, and death.

**Results:** Patient characteristics and demographics were similar in the EVH and OVH groups. No operative intervention for occlusion was required in the EVH group (0/29) compared with 13.4% in the OVH group (8/59) ( $p = .03$ ). At the mean follow-up time of 21 months, primary patency rate was 92.8% in the EVH group and 80.6% in the OVH group ( $p = .12$ ). No significant differences were found between the EVH and OVH groups in postoperative complications, length of hospital stay, operative time, patency rates, limb salvage, and death.

**Conclusion:** Despite initial concerns of damaging the venous conduit with a minimally invasive approach to saphenous vein harvest, the authors found that EVH resulted in a trend toward improved patency rates and decreased infectious wound complications while affording the benefit of improved cosmesis. An endoscopic approach results in smaller incisions, decreased interventions for occlusion, and improved outcomes compared with OVH. According to the authors, EVH is the procedure of choice for harvesting saphenous vein for femoral to below the knee arterial bypass surgery.

*Journal of Vascular Surgery. 2006;44:282-287; discussion 287-288.*