

A prospective randomized angiographic study of open versus endoscopic saphenectomy for CABG

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Objective: Although endoscopic saphenectomy for coronary artery bypass grafting surgery (CABG) is associated with a decreased incidence of wound complications and has shown no increased incidence of histological trauma or endothelial dysfunction, a concern remains about the angiographic results of saphenous vein grafts (SVG) harvested with this technique in regard to the development of intimal hyperplasia in the body of the graft due to bipolar cauterisation of side branches. The purpose of this study was to compare the angiographic appearance of SVG harvested with the open versus endoscopic technique after CABG.

Methods: Forty patients undergoing primary CABG surgery with at least one internal mammary artery (IMA) and one SVG were randomized preoperatively to open versus endoscopic saphenectomy using the Guidant Vasoview system with bipolar cauterisation of side branches.

Quantitative coronary angiography was performed (mean 3 months) after CABG.

Results: There were no significant differences between preoperative variables between both groups. There was no statistically significant difference in the patency rates of IMA grafts and in the patency rate of SVG (85.2% versus 84.4 % respectively) ($P < 0.05$) between the two groups and no difference in graft stenosis in the body of the SVG between both groups ($P < 0.05$).

Conclusion: The angiographic appearance and patency rate of SVG harvested for CABG by the endoscopic technique with bipolar cauterization are similar to those harvested with the open technique. These results support use of endoscopic saphenectomy for CABG because of the lower incidence of wound and infectious complications and superior functional results.

Heart Surgery Forum. 2003;6(suppl 1):S48.