

Histologic evidence of the safety of endoscopic saphenous vein graft preparation

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Background: Endoscopic methods of saphenous vein procurement have recently been introduced. These techniques have been successful in limiting pain and wound complications, but less information on assessing potential trauma to the harvested vein segment is available.

Methods: Fourteen male patients undergoing coronary artery bypass grafting were included in the study. Nine patients underwent endoscopic procurement of saphenous vein whereas 5 patients underwent procurement using standard open techniques. Histologic appearance and immuno-histochemical studies (factor VIII:vWF

[von Willebrand factor protein] and CD34) of the vein segments were reviewed in a blinded fashion.

Results: On histologic analysis, no differences in the intima, media, or adventitia were found between endoscopically and conventionally obtained vein segments. Immuno-histochemical staining for factor VIII:vWF and CD34 showed no differences between veins harvested by the two techniques.

Conclusion: Endoscopic saphenous vein harvesting does not appear to traumatize the vessel wall any more than open techniques. Longitudinal assessment is necessary to evaluate long-term patency in vein grafts procured using this method.

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