

Minimally invasive saphenous vein harvesting

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Background: Minimally invasive techniques to harvest the saphenous vein for coronary artery bypass grafting continue to improve and evolve. Smaller cutaneous incisions have been shown to decrease postoperative discomfort and improve healing. We describe a technique involving carbon dioxide insufflation and endoscopic dissection to allow easier and atraumatic dissection.

Methods: The VasoView endoscope system (Origin Medsystems, Inc) was used to harvest the saphenous vein for coronary artery bypass grafting in 27 patients. This group was compared with 24 patients having traditional saphenous vein harvesting. Wounds

were examined for complications daily. Pain and postoperative mobility were quantified independently by physical therapists.

Results: Comparison of patients in the two groups revealed greater edema in the legs with traditional harvesting. Patients with endoscopic removal also had less pain and increased mobility postoperatively. On average, minimally invasive harvesting allowed patients to ambulate to a pre-discharge goal of 300 ft. 2 days earlier.

Conclusion: Minimally invasive harvesting of the saphenous vein by insufflation techniques is safe, effective, and atraumatic to the conduit. Discomfort is minimized, promoting earlier and improved ambulation.

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