

Great saphenous vein harvesting: a systematic review and meta-analysis of open versus endoscopic techniques

Cadwallader RA, Walsh SR, Cooper DG, Tang TY, Sadat U, Boyle JR

Cambridge Vascular Unit, Cambridge University Hospitals NHS Foundation Trust, Cambridge, UK

Background: The great saphenous vein is frequently harvested for use as a conduit in lower limb bypass surgery. A number of papers advocate the use of an endoscopic technique rather than a traditional open technique to minimize the associated morbidity. We undertook a systematic review and meta-analysis to compare morbidity associated with these 2 techniques.

Methods: Medline, PubMed, and secondary referencing identified 16 randomized control trials comparing these 2 methods of harvesting. Primary outcome measures were infection, hematoma, and wound dehiscence and pooled odds ratios (POR) were calculated using a random effects model.

Results: Sixteen trials (3689 patients) were identified. Overall complications (POR 7.03), infection (POR 8.08), and wound dehiscence (POR 8.23) were all significantly more common in the open harvesting group compared to the endoscopic group.

Conclusion: Endoscopic techniques have a role in vein harvesting but are operator dependent and therefore are only a preferable modality compared to open harvesting methods in experienced hands. More research is required to establish whether long-term patency rates are comparable for the 2 techniques.

Vascular and Endovascular Surgery. 2009;43:561–566.