

## Open versus endoscopic saphenous vein harvesting: wound complications and vein quality

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**Background:** The saphenous vein is an important conduit for coronary artery bypass grafting. Wound complications from traditional open vein harvesting occur often. Minimally invasive endoscopic saphenous vein harvesting may decrease wound complications. Vein quality may be an issue with endoscopic harvesting.

**Methods:** The authors reviewed 568 patients who had bypass grafting and saphenous vein harvesting either endoscopic (group A, n = 180) versus open (group B, n = 388). Both groups were demographically similar and management identical. Wound complication was defined by the need for intervention and included lymphocele, hematoma, cellulitis, edema, eschar, and infection. Multiple vein segments were obtained from 8 patients, 4 from each group, and examined histologically.

**Results:** Wound complications were significantly less in group A (9/180, 5%) versus group B (55/388, 14.2%), p value equal to or less than 0.001. Open harvesting (p < 0.001), diabetes (p < 0.001), and obesity (p < 0.02) were risk factors for wound complication by univariate analysis. By multiple logistic analysis, open harvesting (p < 0.0007) and diabetes (p < 0.0001) were independent risk factors for wound infection. Histologic evaluation of vein samples showed that there was no difference between the groups and vascular structural integrity was maintained.

**Conclusion:** Endoscopic saphenous vein harvesting was associated with fewer wound complications and infections. Vein quality was not adversely affected because of endoscopic harvesting.

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