

What is the impact of endoscopic vein harvesting on clinical outcomes following coronary artery bypass graft surgery?

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Objective: Endoscopic vein harvesting (EVH) is increasingly used as an alternative to open vein harvesting (OVH) for coronary artery bypass graft (CABG) surgery. Concerns about the safety of EVH with regard to midterm clinical outcomes following CABG have been raised. The objective of this study was to assess the impact of EVH on short-term and midterm clinical outcomes following CABG.

Methods: This was a retrospective analysis of prospectively collected multi-centre data. A propensity score was developed for EVH and used to match patients who underwent EVH to those who underwent OVH. Setting Blackpool Victoria Hospital, Plymouth Derriford Hospital and the University Hospital of South Manchester were the main study settings.

Patients: There were 4709 consecutive patients who underwent isolated CABG using EVH or OVH between January 2008 and July 2010. Main outcome measures The main outcome measure was a combined end point of death, repeat revascularisation or myocardial infarction. Secondary outcome measures included in-hospital morbidity, in-hospital mortality and midterm mortality.

Results: Compared to OVH, EVH was not associated with an increased risk of the main outcome measure at a median follow-up of 22 months (HR 1.15; 95% CI 0.76 to 1.74). EVH was also not associated with an increased risk of in-hospital morbidity, in-hospital mortality (0.9% versus 1.1%, $p=0.71$) or midterm mortality (HR 1.04; 95% CI 0.65 to 1.66).

Conclusion: This multi-centre study demonstrates that at a median follow-up of 22 months, EVH was not associated with adverse short-term or midterm clinical outcomes. However, before the safety of EVH can be clearly determined, further analyses of long-term clinical outcomes are required.

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