Our 12 Consecutive Years Of Totally Endoscopic Conduit Harvesting Practice

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Objective:
Oxford 12-year retrospective analysis of prospectively collected data aims to evaluate the effectiveness of endoscopic vein harvesting (EVH) and endoscopic radial harvesting (ERAH) as the primary harvesting techniques in coronary artery bypass grafting (CABG) procedures.

Method:
- **12 years - 3,058 patients**
- 3,058 patients (87,7 %): EVH and/or 528 ERAH
- 468 (15.3 %): open vein harvesting (OVH)
  - ➢ Sub-group analysis:
    - ✓ 27 patients: completed satisfaction questionnaire
    - ✓ 680 patients assessed for SSI post- surgery
    - ✓ CT coronary angiography at 6 months: 148 patients - 422 grafts

Standardised preoperative assessment using modified Allen's test with pulse oximetry along with ultrasound scan of the radial artery and ulnar artery to determine diameter, flow, anatomical abnormalities, signs of atherosclerotic plaques, identify bifurcation & ensure adequate length

Results:

Technique	3,058 Percentage of Patients	Average Harvesting Time (per vein)	Conversion to OVH (%)	Surgical Site Infection (SSI) Rate (%)
EVH	87.7%	<15 minutes	0.5%	0%
ERAH (with tourniquet)	87.7%	~25 minutes	0.5%	0%
OVH	15.3%	N/A	N/A	3%

Conclusion:
Endoscopic conduit harvesting for CABG procedures
- Offers excellent conduit patency
- Maximises theatre efficiency
- Enhances postoperative recovery
- Standardization of training is crucial to the quality of the service
- Socio-economic benefits for healthcare systems

Excellent conduits patency:

	Pre-operative QCA n (%)	Post-operative CT n (%)
Native artery stenosis <70%	13 (59,1%)	12 (54.5%)
CTO artery	5 (22,7%)	6 (27.3%)
Native artery stenosis >70%	4 (18,2%)	4 (18.2%)

High competitive flow

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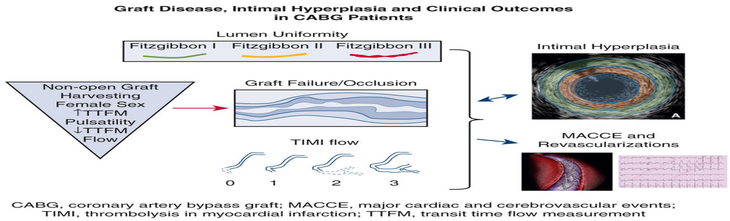
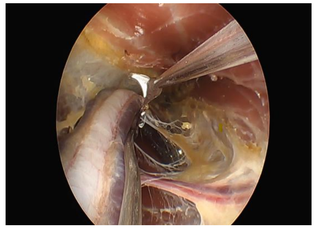
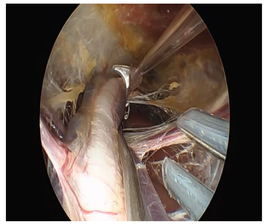
No obvious reason for failure

Krasopoulos G. et al., *(2022).* Graft flow assessment and early coronary artery bypass graft failure: a computed tomography analysis. *Interactive Cardiovascular and Thoracic Surgery*