

MEETING ABSTRACT

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External stenting of saphenous vein bypass grafts does not affect intraoperative transit-time flow measurement

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Background/Introduction

Saphenous vein grafts (SVG) are the most commonly used conduits for coronary artery bypass operations (CABG), despite their sub-optimal long-term patency. External stenting of SVG (eSVS[®] mesh) was recently proposed to improve their long term patency. Transit time flow measurement (TTFM) is a well described method for intraoperative quality control for CABG.

Aims/Objectives

The aim of this study is to assess whether external stenting of SVG affects perioperative TTFM.

Methods

Twenty six patients who underwent elective CABG were divided into two groups based usage of externally stented

SVG (eSVS[®] mesh, n = 13), or bare SVG (n = 13). The anastomotic quality were evaluated with TTFM using the Medi-Stim VeriQ flowmeter and a 4 mm probe. Perioperative data were given as median (min - max) and compared between groups (Table 1).

Results

There was no significant difference between two groups regarding pre and peri-operative parameters, although more patients in the eSVS[®] mesh group had concomitant procedures (3, 23% vs. 2, 15%, P > 0.99). All SVG were patent in both groups at the end of the surgical procedure and TTFM values were similar. eSVS[®] mesh group had a trend for longer cardiopulmonary and aortic cross clamping times, which didn't reach statistical significance.

Table 1

	Mesh covered SVG (n = 13)		Bare SVG (n = 13)		P
	median	min-max	median	min-max	
Age (years)	64	51-82	64	59-80	>0.05*
Bypass grafts	3	1-4	3	2-4	>0.05*
Simultaneous concomitant operation	3 (23%)		2 (15%)		>0.05°
CBP time (min)	112	57-161	94	52-134	>0.05*
Cross Clamp Time (min)	69	34-122	63	28-96	>0.05*
TTFM (ml/min)	59	19-106	43	30-155	>0.05*
PI	1.9	1.2-4.9	2.3	1.3-2.9	>0.05*

*Mann-Whitney U Test, ° Fisher's exact test

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Conclusion

External stenting of SVG by eSVS[®] mesh does not extend the operative times. All SVG showed excellent flow and eSVS[®] mesh coverage didn't impede TTFM or provide graft flow different to controls.

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