TECHNICAL NOTES

Ultrasound mapping of long saphenous vein surface anatomy in coronary artery bypass surgery**OA Mownah, PR Middleton, RU Nair**

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CORRESPONDENCE TO**Omar Mownah**, E: omar.mownah@doctors.org.uk**BACKGROUND**

The long saphenous vein (LSV) has been the most popular conduit for cardiac surgeons performing coronary artery bypass surgery. The traditional method of open dissection based on surface landmarks can result in morbidity (bleeding, infection, wound complications). This can be compounded in the obese patient where difficulties in locating the LSV can lead to extensive dissection and tissue damage.¹ The use of endoscopic techniques to harvest the LSV is reported to reduce these morbidities but is yet to be established as routine practice.² We describe a simple technique to augment the traditional open method by using ultrasound to mark the skin preoperatively at 3–5 points that overlie the LSV.

TECHNIQUE

Ultrasound identification of the LSV takes place in the anaesthetic room after the patient is asleep. A SonoSite® (Bothell, Washington, US) portable diagnostic ultrasound machine, which is regularly deployed for guiding central venous catheter placement, is used to identify the LSV 2cm proximal to the medial malleolus, marked with an indelible pen. Two further points are identified, at the mid-calf and at 2cm distal to the knee. If the dissection is to be extended into the thigh, two further points are marked.

Figure 1 Ultrasound mapping of long saphenous vein surface anatomy**DISCUSSION**

The LSV harvest has particular relevance as it offers a training opportunity to the junior members of the cardiac surgery team. We have observed minimal dissection of the tissues overlying the LSV in those cases where the vein was identified as described. In addition, there was less trauma to the cutaneous nerves and a significant reduction of subcutaneous haematoma formation. These outcomes will have a significant impact on wound healing as well as post-surgical neuralgia, particularly in obese and diabetic patient groups.

References

1. DeLaria GA, Hunter JA, Goldin MD *et al.* Leg wound complications associated with coronary revascularization. *J Thorac Cardiovasc Surg* 1981; **81**: 403–407.
2. Cheng D, Allen K, Cohn W *et al.* Endoscopic vascular harvest in coronary artery bypass grafting surgery: a meta-analysis of randomized trials and controlled trials. *Innovations* 2005; **1**: 61–74.

Use of a purse string suture in proximal coronary anastomosis to reduce size mismatch between conduit and aortotomy**Omar A Jarra¹, Reza A Jarra², Kok Meng John Chan¹, Prakash P Punjabi³**¹National Heart and Lung Institute, London, UK²Imperial College London, London, UK³Hammersmith Hospital, London, UK**CORRESPONDENCE TO****Prakash P Punjabi**, E: p.punjabi@imperial.ac.uk**BACKGROUND**

Coronary artery bypass graft surgery commonly involves the use of the left internal mammary artery as a pedicled graft and the use of saphenous veins, radial arteries and/or right internal mammary arteries as free grafts from the aorta to the coronary arteries.¹ Size mismatch may occur

Figure 1 Size mismatch between aortotomy and conduit; proximal anastomosis is performed using a continuous suture