Figure 1 Mid-thigh loop graft.

Figure 2 Diagrammatic summary of mid-thigh loop graft.

further use. The fistulae can be used for dialysis within 4–6 weeks making it advantageous. The patients are satisfied during dialysis, as exposure does not involve the groin. The cumulative graft survival rate at 1 year from our series of 20 patients is 60%³ comparable to other thigh graft series² and is substantially higher than the corresponding 9% rate reported for tunnelled dialysis catheters.⁴

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A model for developing psychomotor skills in arthroscopic knot tying

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BACKGROUND

Learning to tie arthroscopic knots requires the orthopaedic trainee to develop new psychomotor skills and understand the concepts of sliding and locking knots. These new skills require sufficient time and repeated exposure to be developed.^{1,2} We have developed a cheap and easy-to-construct jig, for practising arthroscopic knot tying.

TECHNIQUE

A piece of wood has a trough routed out and an elastic band is suspended between two protruding screws. At the side of the

Figure 1 (A) The elastic band (labrum) is sutured to the eyelets (suture anchors) on the jig. (B) Full jig assembly with cannula *in situ*.

through a series of eyelets are placed to simulate the eye of a suture anchor (Fig. 1A). The bottom of an empty plastic container simulates the skin and will stabilise a threaded cannula (Fig. 1B). Braided fishing line can be substituted for the suture material commonly used with suture anchors. The use of an elastic band readily demonstrates loss of suture tension during knot tying.

DISCUSSION

It is estimated that to make our jig and perform 50 knots would cost less than £10. To buy a commercially available shoulder simulator and perform 50 knots with suture anchors would cost approximately £8500. This jig allows the trainee to practice some of the crucial steps in arthroscopic shoulder surgery. This can be done cheaply, at home with minimal specialist equipment.

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Figure 1 This therapeutic, wire-guided, wide, local excision of breast specimen radiograph shows a short marker at the superior margin and a long marker at the lateral margin. Microcalcifications are seen near the medial margin.

X-ray detectable thread for orientating a breast specimen – an affordable and less cumbersome solution

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BACKGROUND

Orientation of breast specimens excised for either the diagnosis or treatment of breast cancer is important in order to identify either close or involved resection margins and to aide subsequent histological assessment. Surgical silk sutures are often used for specimen orientation but they are radiolucent. Metal clips are radio-opaque but they can be difficult to locate in the specimen, may be dislodged during handling, and may damage a microtome. Orientation of specimens using various grids or templates has been described.¹ These templates are accurate but can be cumbersome and might obscure the lesion. Vaidya *et al.*²

described a novel technique in which a silk suture soaked in radio-opaque contrast medium was used to orientate the specimen. However, this method may contaminate the breast specimen leaving artefact on the specimen radiograph. Furthermore, the contrast may not be distributed evenly throughout the suture material causing possible confusion with regard to the suture length.

TECHNIQUE

A simple solution is to make use of the radio-opaque thread, X-ray detectable thread, used in surgical gauze swabs. This can be obtained from swab manufacturers in any required length. Sterilised thread is tied to a silk suture and the suture needle is passed through the specimen. Since the silk suture is radiolucent, it can be cut, leaving the radio-opaque single thread visible at the specimen margin.

DISCUSSION

The radio-opaque thread can be seen in the specimen radiograph, allowing easy orientation without obscuring or contaminating the specimen. It is a simple, convenient and cost-effective alternative technique for specimen orientation (Fig. 1).

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