Figure 1 Screw fixation of the secured fragment.

Figure 2 Deployment of suture and secure fixation.

anteromedial portals. The tibial spine is reduced. The acufex ACL drill guide (Smith and Nephew) is used to hold the reduced tibial spine throughout the procedure. Over the guidewire, a 4-mm bit is used to drill the track, terminating the tunnel at the fracture site. The fracture fragment is fixed using the anchor (Fig. 1). The suture is deployed and the 'T'-bar aligned at the distal entrance to the drill track. The pre-tied suture is advanced, thereby securing the tibial spine and ACL (Fig. 2). The incisions are closed in the surgeon's preferred manner, with standard follow-up protocol.

DISCUSSION

Arthroscopic screw or suture fixation of tibial spine fractures proves difficult, with a steep learning curve.³⁻⁵ We suggest a

technique, which is quick, effective and simple. Although we identified no such problems, previous reports of suture anchor failure must be noted and caution taken with this approach. A series of patients must undergo this procedure before the long-term results are known.

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Laparoscopic suturing using the 'looped knot'

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BACKGROUND

Laparoscopic suturing is technically challenging and time consuming. It is performed remotely with a limited field of vision and requires excellent hand-eye co-ordination and manual dexterity.¹ Tying a tight first knot is often difficult due to slipping, especially when tissues are retracted. The suture length must be kept to a minimum to prevent excess loops and folds confusing the field of view whilst remaining long enough to tie the knots and complete the stitching. Routinely, we make use of a loop at the end of the suture to form the initial knot when performing continuous laparoscopic suturing.

TECHNIQUE

A loop is made around the shaft of a laparoscopic instrument towards the end of a suture by the theatre nurse with any excess being trimmed (Fig. 1). This produces a loop of approximately 5 mm in diameter. It is then passed through the port into the peritoneal cavity folded to ease its passage (Fig. 2). After taking the first bite of tissue, the needle is passed through the loop (Fig.

Figure 1 Making the loop knot.

Figure 4 Pulling the knot tight.

Figure 2 Passage of folded suture into abdomen.

Figure 5 Retraction of first stitch and completion of suturing.

Figure 3 Passing the needle through the loop.

3) and the remaining suture is pulled through, snugging the loop down tight (Fig. 4). This allows for traction to be applied ready for the next stitch (Fig. 5). Suturing is then completed as usual.

DISCUSSION

This technique provides a simple method of forming a sound initial knot. It saves time, prevents slipping and ensures the use of the full length of the stitch whilst preventing any excess, unused stitch confusing the restricted laparoscopic field of view.

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