Figure 3 Radiograph of guidewire hooked into screw hole

a simple analogy would be to the spring loaded locking mechanism on adjustable crutches. Finally, a T-handle Jacobs chuck is applied to the proximal end of the guidewire and pulled.

DISCUSSION

We believe this to be a simple and effective solution for what could be a difficult situation intraoperatively by using cheap universally available equipment without causing any unnecessary delays for the patient.

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A simple and cost-effective technique to prevent turbulence and improve visualisation during shoulder arthroscopy

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BACKGROUND

During arthroscopic shoulder surgery, subacromial space bleeding can obscure and frustrate attempts to obtain effective visualisation during such procedures as acromioclavicular joint (ACJ) excision or rotator cuff repair. In many cases this is due to fluid leakage from non-cannulated portals. Fluid flow from these portals creates a suction effect by virtue of Bernoulli's principle and draws blood into the subacromial space. Digital

Figure 1 A 20-gauge needle and sheath

Figure 2 Right shoulder arthroscopy with standard posterior subacromial camera portal with sheath placed into the lateral portal to prevent excessive fluid escape and turbulence. Anterior acromioclavicular joint (ACJ) portal is used to perform joint excision with clear visualisation.

pressure over these portals can prevent this; however, an assistant will be required during the procedure.¹ We describe an independent, simple and cost-effective way of controlling turbulence within this closed system.

TECHNIQUE

Using the standard posterior subacromial portal, the subacromial space can be visualised. A lateral portal is created by a stab incision using a No 15 blade and a subacromial decompression can be performed. When more than two portals are required, such as the anterior portal for an ACJ excision, a sterile 20-gauge needle sheath (Fig 1) can be inserted into the lateral portal to prevent fluid leakage and turbulence (Fig 2). The needle can be used to localise the anterior portal for the arthroscopic ACJ excision.

DISCUSSION

This technique has not been described previously and allows the surgeon to operate independently without the use of an assistant to apply digital

pressure to prevent turbulence and improve visualisation. The 20-gauge needle and sheath are commonly available and cost-effective compared with branded arthroscopic cannulae.

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'Bale hook' needle mount and suturing techniques

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BACKGROUND

In restricted surgical spaces the traditional supination and pronation suturing movements of the wrist may prove extremely difficult. We present two variations on needle holding techniques to facilitate suturing in otherwise awkward situations. These 'bale hook' (Fig 1) techniques are employed routinely by the authors during laparoscopic prostatectomy and can be readily transferred to other procedures.

TECHNIQUES

During an extraperitoneal laparoscopic radical prostatectomy, technique 1 is used to close paraumbilical anterior rectus sheath port site incisions. A 'J' shaped needle is grasped in the line of its long axis with its curvature in the same flat plane as the needle holder jaws and handle. The needle is 'dipped' into the incision, 'bale hooking' the anterior fascial layer (Fig 2). Using this technique, stay sutures are placed either side of the fascia facilitating intraoperative access and subsequent wound closure.

Technique 2 is also employed in laparoscopic radical prostatectomies during urethrovessical anastomoses in the awkward and restricted 12 o'clock position posteriorly. The rear of a 5/8 or 1/2 circle needle is grasped parallel to its long axis with the needle curve and tip perpendicular to the jaws and pointing towards the handle (Fig 3). By a simple straight line traction movement, the needle can be hooked through the posterior bladder wall and delivered ergonomically and atraumatically.

Figure 1 Bale hook or box hook; used for handling cargo

Figure 2 In-line mounting of the 'J' needle for closure of fascia in small laparoscopic incisions

Figure 3 Alternative needle mounting 'bale hooking' suture technique for laparoscopic urethrovessical anastomosis

DISCUSSION

These simple variations on traditional suturing techniques can be employed safely and readily during a wide variety of surgical procedures. They are effective and negate the use of more expensive suture closure devices.