Minimally invasive washout of the shoulder for septic arthritis in children: a new technique

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BACKGROUND

Successful treatment of septic arthritis of the shoulder in children relies on early diagnosis, immediate washout of the joint and appropriate antibiotic treatment. We present a minimally invasive technique for the washout of the septic shoulder.

OPERATIVE TECHNIQUE

The operation is performed under general anaesthesia with the use of an image intensifier. The child is positioned supine with the shoulder on a transparent arm board. Gentle longitudinal traction is performed by an assistant in order to increase the joint space. Two wide-bore cannulae are inserted into the joint anteriorly 2cm apart (Fig 1). Pus is aspirated and sent for microbiologic and microscopic assessment. Joint entry is confirmed by radiopaque dye injection (Fig 2). The trocar is removed leaving the plastic sheath inside the joint.

One of the portals is used for washout and the other for suction until the fluid is clear. The washout is performed in stages interrupted by passive manipulation of the joint throughout the range of motion to ensure complete washout of all compartments of the joint. Finally, suction is connected to the outgoing cannula after removal of the ingoing one to ensure removal of all the remaining fluid.

Figure 1 Wide-bore cannulae inserted into the joint anteriorly 2cm apart

Figure 2 Joint entry confirmed by radiopaque dye injection

DISCUSSION

Minimally invasive shoulder washout is a reliable, safe, quick and effective technique, which is not technically demanding. It is recommended as an initial procedure. The surgeon should have the expertise to perform a traditional arthroscopic or open washout if this technique fails for technical reasons or in the presence of thick pus.

Artificial erection in Peyronie's disease surgery

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BACKGROUND

The surgical management of the penile deformities observed in Peyronie's disease can be complex. It requires an accurate assessment of the penis in the erect state in order to evaluate the degree of curvature and wasting. It is also imperative to document penile lengths at the beginning and end of surgery in conjunction with overall surgical correction. An artificial erection is usually achieved by puncturing the corpora with a 21G butterfly needle and inflating the penis with normal saline. It is often necessary to inflate the penis repeatedly during surgery, thereby necessitating recurrent penile punctures. This may lead to haematoma formation that can complicate surgery and result in unsatisfactory postoperative appearances and pain.

TECHNIQUE

A tourniquet is applied to the base of the penis to minimise intraoperative bleeding and help provide occlusion to the corporal bodies. The penis is de-gloved using a subcoronal incision. A 22G venous cannula is

Figure 1 Corporal puncture using a 22G venous cannula

Figure 2 Satisfactory positioning ensures the cannula rests in a single corporal body while avoiding injury to adjacent structures. A non-return valve with a Luer lock connector is attached.

Figure 3 The cannula is secured in position by suturing it to the foreskin. Routine circumcision is performed at the end of the procedure.

sited into either corporal body through the glans (Figs 1 and 2), taking care not to injure the penile urethra. Following adequate placement, the cannula is secured to the foreskin with a suture and a non-return valve with a Luer lock connector is attached (Fig 3). The penis is inflated using

50ml of normal saline. The syringe can then be detached, refilled and reattached without dismantling the cannula mechanism.

DISCUSSION

We have described a simple and reproducible technique for achieving a safe cavernosal puncture that allows repeated inflation of the penis without recurrent positioning of the primary needle. This method allows the surgeon to repeatedly inflate the penis during Peyronie's disease surgery while minimising the risk of haematoma formation.

Reference

1. Kumar R, Nehra A. Surgical and minimally invasive treatments for Peyronie's disease. *Curr Opin Urol* 2009; **19**: 589–594.

Arthroscopic removal of large loose body: an improved technique

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BACKGROUND

Henderson described the benefits of removal of loose bodies from the knee joint in 1916 using an open technique.¹ Removal of loose bodies is usually straightforward where a lesion is <1cm as it can be drawn through the arthroscopic portal.² However, larger lesions need a further incision, accessory portals or widening of the portal for removal.^{3–5} In addition, the use of hand instruments to reduce the size of the fragment can result in multiple small bodies that can be disseminated throughout the knee. This increases the operative morbidity and may necessitate closure of a formal incision with sutures. We describe a technique using triple puncture for an all arthroscopic removal of any loose body within the knee.

Figure 1 Loose body in knee joint