Difficult urethral catheterisation made easy: validation and the new application of the established technique

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Posterolateral fibula preserving approach to the peroneal artery

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BACKGROUND

Urethral catheterisation of male patients is not always straightforward. If simple urethral catheterisation is not possible, insertion of a suprapubic catheter or catheterisation over a guidewire is usually required. Both of these options require urological expertise, which may not be readily available. We advocate use of a technique that requires no special skills and yet is surprisingly unknown to the majority of junior doctors.

TECHNIQUE

Urethral catheterisation is performed using a 16–18F Foley catheter attached to a bladder syringe containing 60ml of normal saline. The catheter is introduced to the point of obstruction and then withdrawn 2–3cm. The subcoronal urethra is compressed gently against the catheter to promote retrograde flow of saline with the aim of displacing urothelial flaps or occluding prostatic lobes. The catheter is then advanced with simultaneous brisk saline instillation by an assistant. The instillation should be abandoned if severe pain or major resistance are encountered.

This technique can also be employed to fill an empty bladder for suprapubic catheterisation in cases with an impassable urethra. The catheter is secured in the urethra by inflating the balloon with 2–3ml of fluid. Saline is subsequently instilled into the bladder until sufficient distension is achieved.

DISCUSSION

We have employed this method successfully in 17 cases of difficult urethral catheterisation. Rescue cystoscopy and suprapubic catheterisation were required in another four cases (two urethral strictures and two bladder neck contractures). In our view, this technique is a useful first line option following failed urethral catheterisation in male non-trauma patients.

Reference

1. Harkin DW, Hawe M, Pyper P. A novel technique for difficult male urethral catheterization. *Br J Urol* 1998; **82**: 752–753.

BACKGROUND

Distal arterial bypass on to the peroneal artery is a technically challenging but potentially limb saving procedure. Traditional techniques involve lateral and medial approaches. The medial approach requires a deep dissection with equally difficult anastomosis. The lateral approach necessitates a partial fibulectomy, which may sacrifice the rotational stability of the lower leg. We describe an alternative posterolateral approach to exposing the peroneal artery, conserving the fibula.

TECHNIQUE

An incision is made at the level of the middle third of the fibula, 2cm behind its posterior margin. The lateral peroneal muscles are mobilised from their insertions on the fibula and retracted posteriorly. This permits access to the deep posterior compartment of the leg, where the peroneal artery is identified with its associated deep veins (Fig 1). The artery can then be mobilised in the usual fashion. The graft can be tunnelled either laterally or through the popliteal fossa.

Fibula Peroneal artery Superficial peroneal muscles

Figure 1 Photograph of dissection

DISCUSSION

This technique has two main advantages over the traditional approach. First, there is no need for removal of the fibula or deep traumatic medial dissection. Additionally, it can also be useful in revision distal bypass surgery as the tissue planes are preserved, enabling safer and more precise dissection.