Technical Section

TECHNICAL NOTES AND TIPS

TECHNICAL NOTES

A simple method of securing the safety wire during ureteroscopy

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BACKGROUND

Some experts no longer use a safety wire during routine ureteroscopy but most urologists advocate a safety guidewire to avoid complications,^{1,2} especially in complex cases.

TECHNIQUE

We describe a technique for securing the safety guidewire during ureteroscopy. Once the safety guidewire is placed, it is curled and secured to the drape using a haemostat (Fig 1). Then a towel that has been soaked in sterile water is draped across the curled safety wire.

Figure 1 Safety wire secured to the drape with a haemostat

DISCUSSION

This technique is quick and simple. The haemostat secures the safety wire to the drape and the wet towel ensures that the wire does not move with further manipulation during the ureteroscopy and stone basketing. The wire can later be used to aid placement of a ureteral stent at the end of the case.

References

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Vacuum-assisted sterile drainage of large post-operative seromas: the Royal Marsden technique

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BACKGROUND

Operations involving regional lymph node dissection or extensive soft tissue surgery may result in a post-operative seroma. Such collections can cause localised pain, restricted mobility, wound dehiscence, infection and occasionally mask recurrence of the index pathology. Closure of dead space and post-operative drains are used routinely but seromas remain common. Our method provides a simple sterile technique for aspirating large volumes quickly in an outpatient setting.

Figure 1 Dismantled 2ml syringe, vacuum drain connecting port and white needle prior to assembly

TECHNIQUE

Once the optimal site for seroma drainage is identified and the skin surface cleaned, the equipment is assembled (Fig 1). The plunger is removed from a 2ml syringe (Terumo UK Ltd, Egham, TW20 9AW) and the empty casing placed tightly onto an untrimmed connecting port from the distal end of a vacuum wound drainage system (Van Straten Medical, Nieuwegein, Netherlands) with 20KPa (600mmHg) of negative pressure. A 16G white needle (Becton, Dickinson UK Ltd, Oxford OX4 4DQ) is connected to the syringe (Fig 2). The needle is placed percutaneously into the seroma cavity and the vacuum released. Given correct needle place-

Figure 2 Assembled equipment for seroma drainage

ment, seroma fluid can be briskly evacuated into the 400ml vacuum drain. This can be disconnected and replaced via the Luer lock connector should further drainage be required, without re-siting the needle or compromising sterility of the closed system. If a sterile fluid sample is required, this can be taken from the drain following aspiration.

DISCUSSION

The causes of seromas are not fully understood although increased age, weight, lymphatic disruption and use of extensive electrocautery have been implicated.^{1,2} Numerous treatments for seromas have been trialled including fibrin-based glues,³ pressure garments, and local application of corticosteroids⁴ and sclerosants such as erythromycin.⁵ None eliminate occurrence conclusively.

Our method for drainage avoids the need for awkward syringe aspiration, which can be time consuming and uncomfortable for the patient. The technique is versatile and can also be used for other procedures such as conservative aspiration of a large scrotal hydrocoele.

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External rotation of the draining vein improves flow in arteriovenous fistulas

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BACKGROUND

Arteriovenous (AV) fistulas were first described in 1966 by Brescia *et al.*¹ High success rates have resulted in the technique of anastomosis remaining largely unchanged since this time. Here we describe a refinement on this technique that optimises venous length and helps prevent kinking of the draining AV fistula vein.

TECHNIQUE

Often the vein and artery are closely related, allowing side-to-side anastomosis or end-to-side anastomosis with a chamfered vein. In some instances there is a significant distance between artery and vein, especially in the antecubital fossa, when an almost 90° AV anastomosis may be required. In this situation maintenance of venous length is pivotal to avoid anastomotic tension and twisting that may preclude fistula maturation.

Figure 1 (A) Vein and artery running parallel; anterior aspect of vessels denoted by dashed/solid black line. (B) Vein mobilised and anastomosed to artery 'as it lies' without rotation (solid and dashed lines continuous); length disparity between heel and toe of anastomosis leads to kinking at point X. (C) Vein rotated by 90° from 'as it lies' position; reduces disparity in length between heel and toe of anastomosis and reduces kinking (solid line at 90° to dashed line)

In closely related vessels, chamfering of the vein minimises kinking with a minimal loss of venous length. However, with widely spaced vessels chamfering alone does not prevent kinking and may serve to significantly shorten the draining vein. Figure 1B shows that when the vein is anastomosed directly 'as it lies', without rotation, the length disparity between the heel and toe of the anastomosis leads to kinking of the vein at point X, the apex of the fistula.

DISCUSSION

Figure 1C shows that by rotating the vein through 90°, from the 'as it lies' position, prior to anastomosis, heel to toe length disparities are minimised, thereby avoiding kinking of the draining vein and maintaining flow and patency.

Reference

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