Laparoscopy for unblocking a ventriculo-peritoneal shunt and confirmation with jugular pressure: a gentle reminder

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BACKGROUND

Once inserted, ventriculo-peritoneal shunts may require several revisions over successive years due to their associated complications.¹ This can lead to the development of intra-abdominal adhesions, making distal exploration challenging.

TECHNIQUE

We use laparoscopy in patients with known adhesions from previous abdominal exploration, requiring distal exploration of their shunt. Satisfactory functioning of the proximal end of the shunt is confirmed following an aseptic reservoir tap, during which cerebro-spinal fluid (CSF) samples are obtained for analysis. For the distal end, a 5mm periumbilical camera port is inserted to locate the shunt tubing in the peritoneal cavity and any adhesions are also identified. The adhesions around the distal end of the shunt are untangled using a separate 3mm instrument port. CSF outflow from the holes in the distal shunt tip proves that the shunt has been unblocked; this may be further confirmed with application of jugular pressure. The small wounds from the laparoscopic ports are then closed with no direct contact or exposure of the shunt tubing.

DISCUSSION

Although laparoscopy for exploration of the distal end of a ventriculo-peritoneal shunt is well recognised,² it should be more often employed due to its low morbidity and minimal exposure of the shunt components to the risk of infection. Furthermore, simple measures such as jugular pressure or a Valsalva manoeuvre would raise the intracranial pressure temporarily and allow visual confirmation of distal CSF flow even in the presence of an anti-siphon valve.

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A knot-free closure technique for total knee arthroplasty

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Figure 1 Closing the wound.

BACKGROUND

The closure of the wound opened during a total knee procedure is an integral part of a successful operation. This report details a safe, quick and easy technique that provides secure closure to the deep tissues. The use of knots has been linked to the development of suture abscesses.¹ Therefore this technique, which maintains closure tension without the use of knots, may decrease the risk of abscess formation. This method draws on well documented techniques including the L suture² but to our knowledge it is unique in this application.

TECHNIQUE

A number two loop polydioxanone sulphate (PDS) suture is used. The deep tissue defect is closed from the distal to the proximal end. A bite is taken from both tissue edges at the distal corner of the wound and, as the suture is pulled through the tissues, the needle is passed through the loop to secure the suture. The suture is then run as a traditional

continuous suture up the wound to the proximal end. Once the proximal end is reached no knot is tied. Instead, the suture is simply turned back on itself and the continuous suture is continued back down the wound until the suture has passed two-thirds of the way down to approximately the level of the patella. At this point two bites are taken in the soft tissue to one side of the wound at 180 degrees to one another in order to lock the suture. The suture is then simply cut flush with the tissue. The superficial wound is closed in a conventional manner with a 2-0 braided polyglycolide suture (Vicryl) to approximate the wound edges and, finally, with clips to the skin.³

DISCUSSION

This provides a solid and reliable approximation of the deep tissues without any knot. This has been used by the authors for two years and has had led to excellent results with no cases of wound dehiscence.

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Control of postoperative bleeding following a procedure for prolapse and haemorrhoids: a novel technique

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BACKGROUND

The majority of bleeding can be controlled by direct compression and using a tamponade effect. In an emergency situation, a common effective method is application of direct pressure by hand. This approach is not suitable for post-haemorrhoidectomy bleeding. Published data highlight a variable rate of postoperative bleeding, from 6% to 25%.^{1,2} We describe a novel technique for providing localised pressure, utilising materials that are freely available on most surgical wards or in the emergency department.

TECHNIQUE

A well lubricated large bore, 3-way catheter is introduced carefully above the staple line. The catheter balloon is inflated with 30ml of sterile water and pulled backwards against the staple line; the balloon acts as a tamponade. Two 100ml metronidazole infusion bottles are secured by suture to the first catheter port. The second port is connected to a catheter bag and the third port spigotted. The two attached metronidazole bottles are left hanging over the bed side, maintaining constant uniform traction. The advantage of the catheter channel is to drain any emerging bleeding

Figure 1 The catheter channel in situ

above the staple line and this is left in situ for 24 hours.

DISCUSSION

We have not come across this technique for control of postoperative procedure for prolapse and haemorrhoids (PPH) bleeding being described in the literature. It is effective, quick and practical. We have used this method in six patients who developed post-PPH bleeding. The haemorrhage was controlled in five patients; one patient needed to go back to theatre. In our experience it is an effective technique in controlling post-PPH haemorrhage.

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TECHNICAL TIPS

New technique of optimal size skin incision for laparoscopic port insertion

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The optimal-sized skin incision for laparoscopic port insertion facilitates easy manoeuvrability of the port while reducing potential air leaks and results in smaller scars.

After infiltration of local anaesthetic, the port, without the trocar, is pushed against the anterior abdominal wall at the site of proposed port