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

A Bahl¹, PJDV McMullan¹, GV Murthi²

Departments of Paediatric Neurosurgery¹ and Paediatric Surgery², Sheffield Children's Hospital, Sheffield, UK

CORRESPONDENCE TO

Anuj Bahl, E: anujbahl3@yahoo.co.uk

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.

REFERENCES

1. Wu Y, Green NL, Wrensch MR *et al.* Ventriculoperitoneal shunt complications in California: 1990 to 2000. *Neurosurgery* 2007; **61**: 557–562.
2. Nfosam V, Chand B, Rosenblatt S *et al.* Laparoscopic management of distal ventriculoperitoneal shunt complications. *Surg Endosc* 2008; **22**: 1,866–1,870.

A knot-free closure technique for total knee arthroplasty

James Tyler¹, Parmjit Sian², Asir Aster³, Milton Pena⁴

¹William Harvey Hospital, Ashford, UK

²Royal Manchester Children's Hospital, Manchester, UK

³Royal Preston Hospital, Preston, UK

⁴Tameside General Hospital, Ashton-under-Lyne, UK

CORRESPONDENCE TO

James Tyler, E: jamest Tyler@doctors.org.uk

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