

Prolapse of the small intestine through the peritoneal opening - an unusual cause of post-shunt intestinal obstruction

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Ventriculoperitoneal (VP) shunt is the most widely used procedure for the management of hydrocephalus. Various complications, including disconnection, breaking, kinking and tip occlusion of the tube, cerebrospinal fluid loculation, shunt infection, intestinal obstruction, migration of the shunt and perforation of the internal organs, have been described with this invasive procedure. We report a case in which bowel prolapsed through the peritoneal opening and caused intestinal obstruction in a female baby.

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A female baby had been born with a large occipital encephalocele, which was excised at the age of 3 months. The child was well immediately after surgery. However, 15 days later an increase in head size was noted and hydrocephalus was diagnosed. She underwent a right ventriculoperitoneal shunt and initially did well, but on the 3rd day she developed abdominal distension and had multiple episodes of vomiting.

Examination revealed distension of the abdomen with absent bowel sounds. A radiograph of the abdomen revealed dilated bowel loops, and the shunt tube was seen lying on the right side (Fig. 1). A clinical diagnosis of acute small-bowel obstruction was made and an emergency laparotomy was performed. During surgery prolapse of the small-bowel loop through the peritoneal opening was noted, with constriction of the rectus muscle (Fig. 2). The constricting band was released on either side, which allowed good vascularity of the bowel loop (Fig. 3). The shunt tube was replaced. The child recovered uneventfully and was thriving the last time she was assessed, at age 15 months.

Small-bowel obstruction in patients with ventriculoperitoneal shunt can be caused by the intestinal volvulus² or knotting of a peritoneal shunt catheter.^{3,5} In our case the bowel prolapsed through the peritoneal opening, which seems to be rare. We did an extensive search of the literature but were unable to find a published report of intestinal obstruction secondary to prolapse of the small intestine through the shunt tube entry point into the peritoneum. A high index of suspicion and aggressive intervention resulted in the good outcome in our case.



Fig. 1. Radiograph of the abdomen showing dilated small-bowel loops.

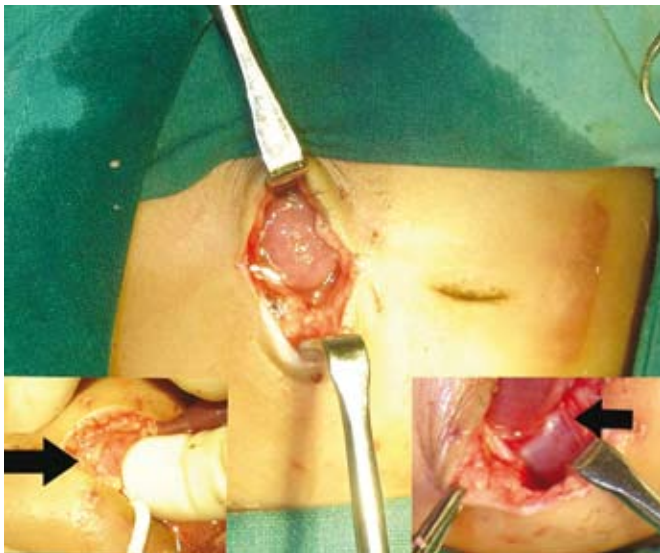


Fig. 2. Intra-operative photograph showing the prolapsed small-bowel loop through the peritoneal opening. Note the constricting ring of rectus muscle and sheath (insets).

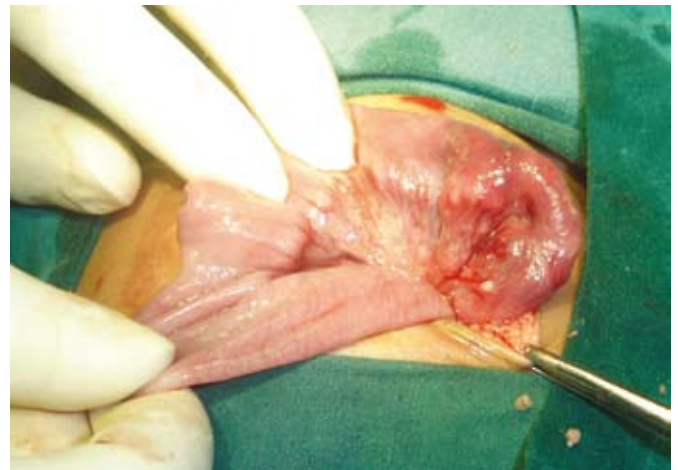


Fig. 3. Released discoloured but healthy bowel.

References

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BOOK REVIEW

Coovadia's Paediatrics and Child Health. 6th ed. Ed. by D F Wittenberg. Pp. 801. R479.95. Oxford University Press Southern Africa, 2009. ISBN 978-0-19-5988437.

The latest edition of *Coovadia's Paediatrics and Child Health* now includes his name in the title, testimony to his involvement in the book since the first edition was published 25 years ago. This 6th edition improves on an already excellent book. It is similar in length and format to the previous edition, but subtle design changes such as more prominent headings make the layout of chapters easier to follow, and highlighted text boxes stress important points or core information.

The structure and content of many of the chapters have in most instances undergone fairly minor revisions. However - worth mentioning because of their popularity as examination topics - the community paediatrics, genetics, HIV and tuberculosis chapters have been significantly updated. The

sections covering the diagnosis of TB, management of drug-resistant TB, and TB and HIV co-infection stand out as being highly relevant, up-to-date information. Management of HIV, and specifically practical aspects of antiretroviral therapy, is expanded on in this edition.

The index is abbreviated compared with the previous edition (half the number of pages), but still seems reasonably comprehensive and easy to use.

Coovadia's Paediatrics and Child Health is a very valuable text for general paediatrics. It is an ideal textbook for undergraduate medical students in a southern African context and for candidates preparing for the Diploma in Child Health or specialist paediatric exams, as well as for any doctor working in paediatrics.

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