CASE REPORT

Occult transfixation of the sigmoid colon by suprapubic catheter

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Abstract

Presentation: a 75-year old man with severe cerebrovascular disease underwent a routine change of suprapubic catheter three months after first insertion. One day after the catheter was changed, he passed faeculent material in the catheter and became unwell with abdominal pain. The catheter tip was visible per rectum.

Outcome: a CT scan confirmed that the suprapubic catheter had passed into the sigmoid colon. He underwent laparotomy and repair of a colovesical fistula and sigmoid perforation. He made an uncomplicated recovery.

Conclusion: damage to the bowel is a rare but recognized complication of suprapubic catheter insertion. Our patient illustrates that the injury may not become apparent until a change of catheter, and clinicians should bear in mind the possibility of occult bowel damage if patients become unwell after a change of suprapubic catheter.

Keywords: urinary catheter, postoperative complications

Case report

A 75-year old man with a history of severe cerebrovascular disease had a suprapubic catheter inserted due to failure of long term urethral catheterization. The percutaneous suprapubic catheter was passed by the urology service under general anaesthesia during concurrent cystoscopy; no intravesical pathology was noted. The patient had no history of colonic or bladder pathology and had not undergone previous abdominal surgery. He was observed on the urology ward for 24 hours post–procedure and remained well for three months with the catheter draining clear urine. A routine catheter change was then undertaken in the patient’s long-stay continuing care ward. Initial difficulty in deflating the catheter balloon was overcome by percutaneous puncture of the balloon. A new catheter was inserted.

One day later, faeculent material was passed via the catheter. A provisional diagnosis of a colovesical fistula was made, a barium enema was requested and prophylactic oral co-amoxiclav was commenced.

Three days later, the tip of the catheter was passed per rectum. The patient’s condition deteriorated, with mild left iliac fossa tenderness, tachycardia and low grade pyrexia. No signs of peritonitis were noted. On transfer to the acute surgical service, CT scanning of the abdomen was performed (Figure 1).

At laparotomy, the catheter was found to enter the sigmoid colon, which was adherent to the dome of the bladder; a colovesical fistula was present at this point. The colon was mobilized from the bladder and the anterior abdominal wall. Both sigmoid perforations were closed without resection and a new suprapubic catheter was inserted under direct vision. The patient made a swift recovery and remains well.

Comment

Long term urinary catheterization is performed on many patients cared for in long-stay wards [1], and in cases where urethral catheterization fails, the suprapubic approach is a useful alternative. Although bowel damage is a recognized complication of percutaneous suprapubic catheterization, there are few reports in the literature concerning this complication [2–4]; the incidence is unknown.

Previously reported cases exhibited features suggesting perforation during the intraoperative or perioperative periods. Our patient remained well for over three months, and it was only after a change of catheter that the problem came to light. Also, he had not had previous abdominal surgery. Previous case reports
describe bowel perforation postoperatively, usually after gynaecological surgery. It is postulated that such surgery alters pelvic anatomy to allow a loop of bowel to enter the potential space anterior to the bladder. The risk of bowel damage can be reduced by ensuring adequate bladder distension, placing the patient in the Trendelenburg position, and the use of ultrasonography to exclude loops of bowel along the proposed catheter track. Combining ultrasonography and fluoroscopy may facilitate the placement of large-bore suprapubic catheters in patients exhibiting technical difficulties including small, non-distensible bladders and significant obesity [5]. Suprapubic catheterization is associated with a low complication rate and it is generally assumed that changing the catheter is a safe procedure. Serious complications may however occur and as our case report shows, may remain undiscovered for some length of time.

**Key points**
- Bowel damage is a recognized complication of suprapubic catheterization.
- Such damage may be occult and manifest only when the catheter is changed.
- Occult bowel damage should be borne in mind if patients deteriorate after a change of suprapubic catheter.

**References**