A case of colovesical fistula caused by the eroded rectal stent

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DESCRIPTION

A 59-year-old man with squamous cell carcinoma of the anus diagnosed and treated with wide local excision followed by chemotherapy and pelvic radiation in 2008 presented 4 years later with constipation. Colonoscopy revealed rectosigmoid stricture for which the patient underwent balloon dilation and colonic stent placement. Biopsy results were negative for tumour recurrence. After stent placement, the patient had been admitted several times with rectal pain with the most recent one being 1–2 months before. That time, colonoscopy did not show any stent malfunctioning, and biopsy was negative for malignancy and diverticulitis.

This time the patient presented complaining of dysuria, frequency and fecaluria accompanied by abdominal pain for several weeks. Urine analysis showed pyuria, bacteria and positive nitrite. A CT scan of the abdomen and pelvis showed urinary bladder filled with contrast and gas as well as small defect within the superior urinary bladder wall which extended to the inferior wall of the distal sigmoid colon (figure 1). Cystoscopy demonstrated a large connection between the colon and the bladder from the eroded rectal stent (figure 2). The patient subsequently underwent laparoscopic colostomy placement with plans for further repair of the fistula at a later date.

The majority of colorectal stents are placed to relieve obstruction caused by malignancy; meanwhile, their role in benign colorectal pathology (strictures, fistulas and diverticular diseases) is less well investigated. Self-expandable metallic stents (SEMSs) were first described in the early 1990s. They have been mainly used as a definite palliative treatment and as a bridge to single-stage surgical approach. The overall technical and clinical success rate approaches above 88%. Meanwhile, technical and clinical failure rates reached 8% and 5%, respectively. Complication rates are less compared with palliative surgery and include stent migration (11.81%), reobstruction (7.34%) and perforation (3.76%). Migration is more common with covered stents as well as after laser pretreatment, chemotherapy and benign aetiology. At the same time, covered stents are associated with less reocclusion because of tumour ingrowth. Perforation rates are higher in those studies that practiced balloon predilation 10% compared with 2% in non-dilation group. Other risk factors for perforation include excessive manipulation with the guidewire and inexperienced operators. SEMSs are considered more cost effective compared with surgical decompression. Our extensive search of the literature found only one case of colovesical fistula caused by the eroded rectal stent. Another contributing factor

Figure 1 A CT scan of the abdomen using oral contrast agent-sagittal view. The urinary bladder is filled with contrast (green arrow) and gas (red arrow). There is also a small defect (purple arrow) within the superior urinary bladder wall which extends to the inferior wall of the distal sigmoid colon at the level of the proximal limb of the colonic stent, this is consistent with colovesical fistula. There is no pelvic adenopathy or ascites. No evidence of diverticulitis of the colon is noted.

Figure 2 Cystoscopy showing the rectal stent eroded into the bladder creating a large connection between the colon and the bladder.

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for colovesical fistula formation in our case was a history of pelvic radiation. Therefore, this case is among one of those few to describe the contributory role of the rectal stent in colovesical fistula formation.^{1–3}

Learning points

- ▶ Colovesical fistula formation can be considered as one of the major and rare complications of colorectal stents. Clinically it may present with dysuria and fecaluria.
- ▶ Self-expandable metallic stents are cost effective and have less mortality and morbidity compared with surgical approaches in treating malignant obstruction.

Competing interests None.

Patient consent Obtained.

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