Oncology

Case report: A rare case of extravasal, extraperitoneal metastasis after transurethral resection of urothelial carcinoma

HC Lim, TL Khong, TA Ong, AC Roslani, CW Ang

A Coloralct Unit, Department of Surgery, Faculty of Medicine, University of Malaya, 50603, Kuala Lumpur, Malaysia
b Urology Unit, Department of Surgery, Faculty of Medicine, University of Malaya, 50603, Kuala Lumpur, Malaysia

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A B S T R A C T
Bladder perforation secondary to transurethral resection of bladder tumour (TURBT) increases the risk of tumour cell seeding and eventual extravasal metastasis. Here we presented a case where a patient with localised bladder tumour was initially managed with repeated TURBTs for tumour recurrence. Subsequently he was found to have extravasal pelvic metastasis. This was likely secondary to microperforation of bladder and tumour cell seeding. Microscopic bladder perforation is difficult to diagnose. However patients with confirmed bladder perforation during TURBT would justify systemic radiological cancer surveillance in view of higher risk of metastatic disease.

Introduction

Transurethral resection of bladder tumour (TURBT) remains the treatment of choice for most non-muscle invasive urothelial carcinoma. This procedure is associated with low incidence of complications, with bleeding and bladder perforation being the commonest complications. Although rare, bladder perforation increases the risk of tumour cell seeding and eventual extravasal recurrence/metastasis. This makes cancer surveillance more difficult as it involves cystoscopy only following TURBT but not pelvic imaging. Here, we present a rare case of large bowel obstruction secondary to pelvic extravasal metastasis of urothelial cancer most likely due to microperforation associated with TURBT.

Case summary

A 84 year-old man presented with gross painless haematuria in 2015. Flexible cystoscopy revealed multiple papillary lesions at the dome and lateral walls of the bladder. He underwent transurethral resection and histology revealed low grade non-muscle invasive papillary urothelial carcinoma. His surveillance flexible cystoscopy showed multiple recurrences in 2016 and 2017 and he underwent further transurethral resections. He was then managed with regular intravesical Mitomycin starting from 2017.

He developed symptoms of increasing constipation and per-rectal bleeding since the end of 2018. Lower gastrointestinal endoscopy completed to splenic flexure showed no intraluminal colonic or rectal pathology but only external compression at the rectum 5cm from anal verge. CT scan showed complex multicystic perirectal lesion compressing the rectum (Fig. 1), and this was FDG avid on PET CT. The urinary bladder appeared normal. Flexible cystoscopy revealed multiple scars in the bladder, an otherwise normal bladder without evidence of local recurrence.

In view of his symptoms of bowel obstruction, he underwent diagnostic laparoscopy and diverting colostomy. The laparoscopy revealed pelvic extraperitoneal solid-cystic mass at the left side of the pelvis compressing on the rectum (Fig. 2a). The mass was completely isolated anatomically from the bladder. Needle aspiration of the cyst revealed haemorrhagic fluid. Opening of cyst wall revealed friable tissue within with contact bleeding (Fig. 2b). Other intraperitoneal organs were normal. Biopsies from the cyst wall and the mass within were sent. Loop sigmoid colostomy was matured at the left iliac fossa.

Histopathology examination of the biopsy showed low grade urothelial carcinoma (Fig. 3). Patient declined chemotherapy or any further surgical intervention and opted for symptomatic and best supportive care.

Discussion

Bladder perforation is a known complication of transurethral