A rare presentation of renocolic fistula due to misplaced ureteral stent - presentation, management and literature review

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Abstract

Double J stents are used commonly in modern urology and the occurrence of complications is rare. Here we report a case of renocolic fistula due to a misplaced ureteral stent, not so far reported in the literature. Early diagnosis and intervention like ureteral stent exchange in our case, can avoid the need for nephrectomy.

Introduction

Double J stents are used commonly in modern urology, mainly for the relief of ureteral obstruction or as a part of other endourological procedures. The occurrence of complications is rare, the most frequent complications are stent migration, encrustation, fracture of the stent, malposition, ureteral erosion or fistulisation, urinary tract infection and forgotten stent. Herein, we report a rare case of renocolic fistula due to misplaced ureteral stent. To our best knowledge, it is not so far reported in the literature. The clinical presentation and rationale for management are further discussed here.

Case report

A 55-year-old male, a known case of urolithiasis presented initially with left-sided loin pain to another medical centre and underwent Left double J stenting for obstructive upper ureteric calculus. The original stone burden before the stenting was two upper ureteral stones measuring 9 × 7 mm and 8 × 7 mm respectively. Presented three weeks later to the outpatient department at our medical centre, he had no specific complaints and was planned for elective left Ureteroscopy (URS). A week later he had presented to the emergency department with respiratory distress and breathlessness (acute exacerbation of bronchial asthma), for which he was admitted under pulmonology and the procedure was postponed to a later date till the respiratory condition stabilised. Computed Tomography of the abdomen showed two calculi in the left upper ureter, extrusion of the proximal end of double J stent outside the renal parenchyma with a low-density collection in the perinephric region of the upper pole of the left kidney and no obvious bowel pathology (Fig. 1a). The patient was taken up for Left semi-rigid URS (7 weeks after the initial Double J stenting), the stent was removed and the two upper ureteric stones were cleared by basket stone extraction. Retrograde pyelography showed contrast draining into descending colon through a thin fistulous tract (Fig. 1b). This patient was managed by replacing the stent with a new stent (6 Fr, 26 cm (COOK Medical)) under fluoroscopic guidance with no further complications. Peroperative urine culture and GeneXpert for genitourinary tuberculosis were negative. The patient was put on broad-spectrum oral antibiotics (Tablet Cotrimoxazole two times daily) for 1 month. Repeat computed tomography and retrograde pyelography after 1 month, showed resolution of the perinephric collection as well as the fistula (Fig. 2a,b). The stent was removed cystoscopically in the same sitting. Repeat culture was negative. The patient is under regular follow-up and is doing well with no complications.

Discussion

Fistulas of the upper urinary tract with the gastrointestinal tract are rare conditions leading to the admixture of enteric content and urine. In spontaneous fistulas, the primary disease process is in most cases, of urologic origin. Only rarely, fistulas are caused by a primary pathological process of the gastrointestinal tract. As a complication of ureteral double J stenting renal parenchymal perforation is a quiet rarely encountered scenario. They usually present with a urinoma or hematoma. Although ureteral double J stenting is a safe procedure, serious complications requiring emergency intervention like hemoperitoneum, renal vein perforation and ureterointestinal fistula have been reported. Dundar et al. reported the first case of renal parenchymal perforation...
with subcapsular hematoma due to double J stent in a patient with a solitary kidney and was managed by repositioning the stent. Two more similar cases of renal parenchymal perforation with perirenal collection (hematoma/urinoma) were reported by Nomikos et al., Aditya Pradhan et al. and Gongulalan U et al. which were managed by stent repositioning or removing it.1,3,4 Presenting with a renocolic fistula is a very rare complication post double J stenting for relieving ureteral obstruction due to urinary calculi and a thorough review of literature revealed no similar reports. Our patient was managed endourologically by replacing with a new double J stent (which was removed cystoscopically after one month), patient is under regular follow-up and is doing well with no complications.

Conclusion

Renocolic fistulae are rare entities by itself and in the context of post double J stenting for relieving ureteral obstruction due to urinary calculi has not been reported so far in literature. Early diagnosis and intervention like ureteral stent exchange in our case, can avoid the need for nephrectomy.

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Authors’ contributions

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Declaration of competing interest

None.

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