CLINICAL IMAGES

Flank pain, haematuria and poor patient compliance: Beware the 'forgotten' JJ stent!

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A 40-year-old man presented with right-sided flank pain of sudden onset and intermittent macroscopic haematuria that had been present for the past 3 months. He had had a hospital admission for a right ureteric stone 3 years previously, where some 'intervention' had been performed. He had been told to return for a follow-up visit, but had defaulted as he felt well after being discharged.

The patient was clearly distressed, with right-sided renal angle tenderness and severe suprapubic pain. A plain supine abdominal film (Fig. 1) and non-contrast computed tomography (CT) scan (Fig. 2) revealed an encrusted 'forgotten' JJ stent with a significant associated secondary stone burden.

A renogram confirmed that the right kidney had been severely affected by the subsequent stone burden, now contributing only 10.32% of the overall renal function.

Discussion

Ureteral JJ stents are invaluable in endo-urological practice, as they provide free drainage from the kidney to the bladder and are effective in relieving and preventing upper urinary tract obstruction.[1] However, complications occur in up to one-third of patients,[2,3] which most commonly include stent encrusation, stent migration, stent fracture and secondary stone formation.[1] Other complications include dysuria, frequency, vesico-ureteric reflux and ureteral fistula.[3] For stents that have lost their radio-opaque coating or when radiography is contraindicated, ultrasonography is the diagnostic modality of choice.[1]

Treatment usually involves endoscopic removal of the retained stent. For stents with a high stone burden, the use of a combination of percutaneous nephrolithotripsy, extracorporeal shockwave lithotripsy, ureteroscopy, electrohydraulic lithotripsy, laser lithotripsy and percutaneous chemolysis may be necessary, with clearance rates of up to 100% being achieved.[4]

Fig. 1. Plain supine abdominal radiograph revealing the right 'forgotten' JJ stent with the associated encrusted renal calculus and two distinct bladder calculi.

Careful selection of patients who stand to benefit most from JJ stent insertion is essential to prevent unnecessary complications.[1] Some patients may disregard counselling concerning the stent's impermanent nature, the need for a return visit for its timeous removal and subsequent intervention.

This is particularly relevant in settings with poor patient compliance, inadequate record keeping, language barriers, ineffective follow-up strategies and limited access to

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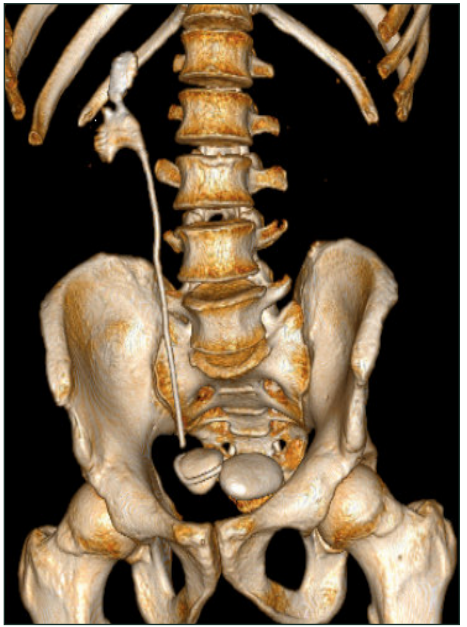

Fig. 2. Abdominal CT scan (3D reconstruction) illustrating the stone burden along the JJ stent. Fracture of the distal stent can also be seen.

specialised health care. The presence of a 'forgotten' JJ stent in patients presenting with flank pain and haematuria should be considered, as it may have devastating consequences if left undetected.

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