Stone in ureterocele peeping through ureteric orifice

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DESCRIPTION
A 42-year-old man presented with a 2-day history of severe colicky pain in the left flank with vomiting. X-ray (figure 1A) and ultrasonography showed a 13 mm left vesicoureteric junction calculus (figure 1B) with moderate hydroureteronephrosis and small-sized right kidney. Serum creatine was 3.0 mg/dL. In view of deranged renal function left side JJ stenting was planned. Cystoscopy showed large stone in ureterocele peeping through left ureteric orifice (figure 2A). The stone was nudged with ureteric catheter down into the bladder (figure 2B,C) and removed after cystolitholapaxy.

The incidence of ureterocele at autopsy is 1/500–1/4000.1 Ureterocele is a dilation of the submucosal ureter due to a delay in Chawall’s membrane absorption.2 Ureteral atony and stagnation of urine in the ureterocele can precipitate stone formation.3 4 The prevalence of stone in a single ureterocele is variable (ranging between 4% and 39%) depending on the geographical origin of the patient.5

A long-standing stone in ureterocele may be silent. Mandal et al6 showed that long-standing stone in ureterocele can cause ischaemia of the ureterocele wall, pressure necrosis and erosion. Spontaneous expulsion from ureteral orifice is rare as the orifice is small in ureterocele. In the present case, the patient suddenly became symptomatic because the stone in ureterocele protruded through the ureteric orifice and occluded the lumen completely by surrounding oedema. It is also possible that the stone eroded through the orifice. The opposite kidney was already compromised so the patient developed acute renal failure.

Figure 1  (A) X-ray showing left lower ureteric calculus. (B) Ultrasound showing left vesicoureteric junction calculus.

Figure 2  (A) Cystoscopy showing ureterocele with stone peeping through left ureteric orifice and surrounding oedema. (B) Stone nudged inside the urinary bladder. (C) Wide-mouthed orifice with ureterocele seen after the stone was manipulated into the bladder.
Learning points

- Stone in ureterocele can be silent or symptomatic.
- Long-standing stone in ureterocele may protrude through the ureteric orifice and become suddenly symptomatic due to surrounding oedema and complete occlusion of lumen.
- If the opposite kidney is compromised it can lead to acute renal failure.

Competing interests
None.

Patient consent
Obtained.

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REFERENCES