

Case report: calculus in the seminal vesicle

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Abstract. Calculus of the seminal vesicle has not been described in children previously. A case is described in which a seminal vesicle calculus was mistakenly thought to lie within the bladder leading to fruitless cystolithotomy.

Case report

A ten year old boy presented with acute left scrotal swelling and pain, dysuria and frequency. His past medical history included high anorectal malformation with urethral fistula, treated by pull-through operation at the age of one day, excision of bladder diverticulae at the age of one year and reimplantation of both ureters for vesicoureteric reflux, the left at the age of one year and the right at the age of five years. He had repeated urinary tract infections and had left epididymo-orchitis at the age of eight years. Tc99mDMSA scan at the age of five years had shown scarring of the right kidney. Ultrasound examination of the scrotum showed swelling of the left epididymis with increased colour flow doppler signals consistent with epididymitis. His symptoms settled with conservative management. Three weeks later he complained of suprapubic discomfort, frequency and recurrence of the left scrotal pain and swelling. Plain films of the urinary tract showed a lamellated calcified opacity measuring 1 cm in diameter projected over the bladder area, which was thought to represent a bladder stone (Fig. 1). On the basis of the clinical presentation and the plain film findings cystolithotomy was performed but no stone was found in the bladder or left lower ureter. Firmness of the left seminal vesicle was noted which when massaged led to the extrusion of pus into the urethral meatus of the bladder. A perivesical drain was placed and a post-operative intravenous urogram with a lateral view of the pelvis showed the calculus to lie inferior and posterior to the left vesicoureteric junction, clearly outside the urinary tract. No

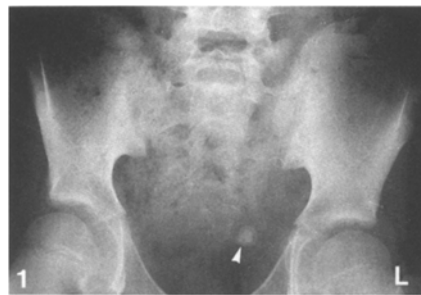


Fig. 1. Radiograph of the pelvis showing lamellated calculus (arrow) projected over bladder area



Fig. 2. Computed tomography section showing calculus (arrow) lying in the left seminal vesicle. (Bladder contains contrast)

stone was seen on ultrasound examination of the urinary tract. Computed tomography was performed with 2 mm sections through the calculus at 5 mm intervals (Fig. 2). This demonstrated swelling of the left seminal vesicle which contained the calculus. Again symptoms settled on conservative management and the plain film findings were unchanged three months later. The calculus was removed from the seminal vesicle by open operation to reduce the risk of epididymo-orchitis. Apart from one further episode of epididymo-orchitis the child has been well for one year following operation.

Discussion

Only two previous reports of seminal vesicle calculus could be found in the English literature. Stones were first reported in association with ureteral ectopy in the seminal vesicles in a middle aged man [1]. The second case [2] was a 26 year old man with a complicated childhood urological history involving three bladder neck resections for outflow obstruction, deroofting of a right orthotopic ureterocoele and right ureteric reimplantation for vesicoureteric reflux. Pelvic calcifications were demonstrated to lie bilaterally within the seminal vesicles on ascending urethrography

when contrast refluxed into the seminal vesicles. The patient had asymptomatic sterile pyuria and no treatment was required. The stones had enlarged on follow-up.

The mechanism of calculus formation in the seminal vesicles is uncertain but may involve reflux of urine up the ejaculatory ducts. Awareness of the possibility of calculi in the seminal vesicles may prevent misdiagnosis as urinary tract calculi. Ultrasound examination would exclude bladder stones and intravenous urography or computed tomography would establish the position of the calculus.

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References

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