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Vaginal Approach to Excise a Rare Paraurethral Leiomyoma

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ABSTRACT

Leiomyomas are benign tumors of smooth muscle origin occurring throughout the genitourinary system. While leiomyomas in the uterus are frequently seen, urethral and paraurethral leiomyomas are extremely rare with a hand full of cases in the literature. Typically, periurethral leiomyomas can present with a mass protruding from the urethra originating from the proximal and posterior portion of the urethra. Herein, we present a new case of a paraurethral leiomyoma causing mass effect on the bladder leading to lower urinary tract symptoms (LUTS) with no gross involvement of the urethra.

Introduction

Leiomyomas are benign tumors of smooth muscle origin occurring throughout the genitourinary system.[1] While leiomyomas in the uterus are frequently seen, urethral and paraurethral leiomyomas are extremely rare with a hand full of cases in the literature.[2–4] Typically, periurethral leiomyomas can present with a mass protruding from the urethra originating from the proximal and posterior portion of the urethra.[5] Herein, we present a new case of a paraurethral leiomyoma causing mass effect on the bladder with no gross involvement of the urethra.

Case presentation

The patient is a 49-year old female who was referred to urology clinic after incidental detection of 3 × 3 cm sharply circumcised lesion adjacent to bladder neck in the right hemipelvis suggestive of leiomyoma (Fig. 1). The lesion was detected on MRI done for evaluation of hip pain. Patient complained of urinary frequency, urgency, nocturia and sensation of incomplete emptying with straining.

Patient was scheduled for exam under anesthesia with transvaginal biopsy to rule out malignancy. In the operating room, the mass could not be palpated very well vaginally making blind biopsy challenging. Using prostate ultrasound probe, the mass was visualized lateral to the bladder and biopsy was obtained using needle guidance which confirmed the diagnosis of leiomyoma (Fig. 2).

Considering presence of symptoms and confirmation of benign diagnosis, we proceeded with excision of the paraurethral mass using a vaginal approach. Cystoscopy revealed a normal urethra with no gross evidence of lower urinary tract invasion, but an extravesical mass effect at the right lateral side wall of the bladder was visualized. An anterior vaginal incision was made and the mass was excised in entirety. The proximal end of the mass was adherent to the bladder causing a bladder wall defect after excision of the mass which was repaired. Patient had an uncomplicated hospital stay. Foley catheter was left in place for 1-week after which cystogram confirmed absence of extravasation and Foley was removed. Patient's voiding and storage symptoms were resolved at two-month follow up.

Discussion

Leiomyoma are the least common clinical entity with paraurethral lesions being extremely rare. Our case was different given cystoscopic evaluation was normal with no gross evidence of urethral invasion and no communication with the lower urinary tract. Furthermore, the mass was not easily palpable on vaginal examination or cystoscopy, making identifying the mass more difficult. Using transvaginal ultrasound, the mass was identified, biopsied, and later excised using an anterior paramedian vaginal incision (Fig. 3a and b).

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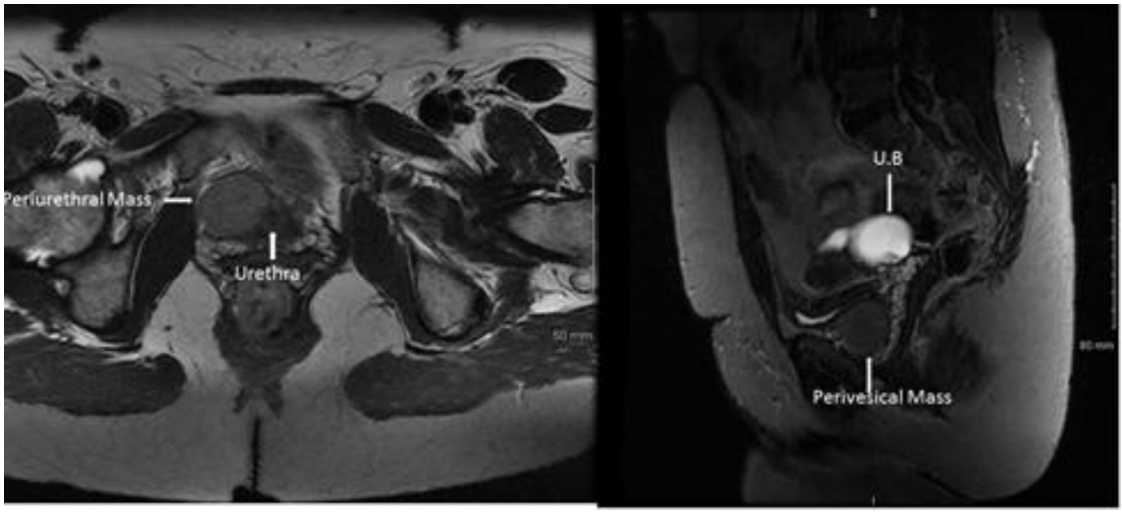

Figure 1. MRI showing a 24 mm × 30 mm homogeneous enhancing circumscribed mass adjacent to urethra.

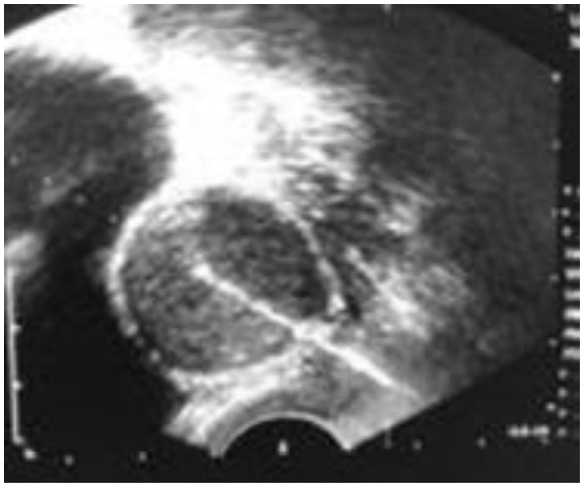

Figure 2. Paraurethral mass biopsied on ultrasound.

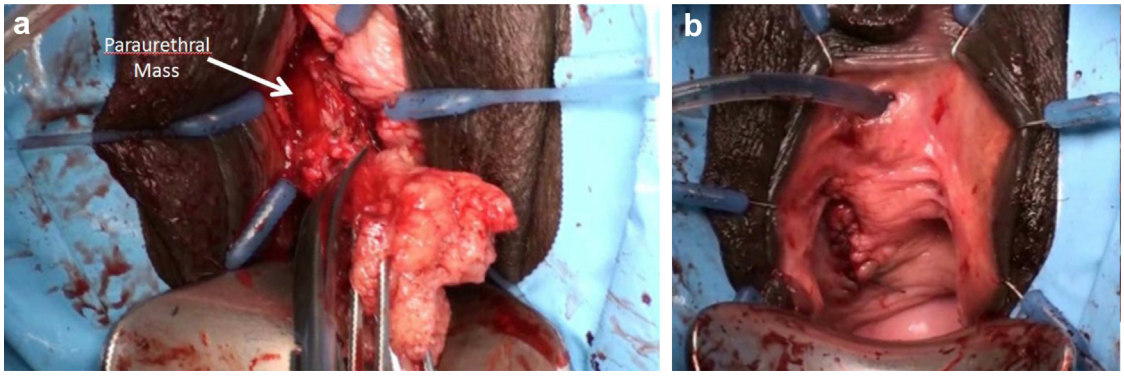

Figure 3. a: Mass visualized by right paramedian vaginal incision. b: Post operative incision.

Conflict of interest

None.

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