Urology Case Reports 43 (2022) 102085

Contents lists available at ScienceDirect

Urology Case Reports

journal homepage: www.elsevier.com/locate/eucr

Ureterocele mimicking uterine polyp in a young woman presenting with a vulvar mass: A case report

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ARTICLE INFO

Keywords:
Ureterocele
Vulvar mass
Uterine polyp

ABSTRACT

Ureterocele is a distal ureteral segment cystic dilatation. Its prevalence in women ranges from 1/5000 to 1/12000.

A 22-year-old adult female presented with a vulvar tumor with left-side pain. She was a candidate for an interlabial lump biopsy. A vulvar growth mimicking a uterine polyp was identified during her further evaluation. On ultrasonography of the abdomen and pelvis, a left-sided hydronephrisis (grade 1), proximal ureteral dilatation, and a ureterocele related to the distal portion of the left ureter that protruded into the urethra were detected. Under anesthesia examination, the ureterocele was removed.

1. Introduction

An ureterocele is a cystic dilatation of the distal ureter that presents as a difficult clinical scenario due to differences in anatomy and symptoms.[1] Ureteroceles can be linked to either a single or a dual collecting system.[2] It can also be intravesical (orthotopic) or open at an extravesical site (ectopic ureterocele).[2] Protruding ureteroceles are extremely uncommon.[3] Ericson was the first to attempt to classify this condition in 1954.[4] He stated that it can be either simple or ectopic (determined by the site of the ureteric orifice). The ureterocele opens in the trigon area of the urinary bladder in the simple non duplex system, but not in the event of an ectopic ureterocele. The opening between the bladder neck and the posterior urethra can be found anywhere.[1] Females are more likely to develop ureterocele (almost four times than males). This ratio is same in childhood to adolescence.[1–4] The left kidney is thought to be afflicted more commonly than the right kidney.[4] While ureteroceles are common in older children and adolescents, they are often discovered by accident. Herein, we present a case of ureterocele in a 22-year-old girl who had an interlabial tumor with obstructive urinary symptoms because of intermittent protrusion of ureterocele to the urethra.

2. Case presentation

A 22-year-old student girl was referred to our office after experiencing extrusion of an interlabial mass -like lesion for a few days. Her past medical history was normal except that she had chronic hypothyroidism, which was managed with regularly administered levothyroxine. She didn't have any intercourse or vigorous physical activities to date. Her menarche occurred when she was 15 years old. Physical examination revealed conjunctival pallor, normal secondary sexual characters and a round-shaped polypoid erythematous mass (2.5 cm × 2.5 cm) emerging out of the interlabial region. This mass was friable, circumferential and had no evidence of strangulation or necrosis. Meatus of the urethra was hardly distinctively delineated. Noticing her obstructive urinary symptoms, urologic consult was done and ultrasonography of urinary system was done. (Fig. 1).

Serum chemistry showed normocytic normochromic anemia, normal renal function tests and normal serum thyroid stimulating hormone level. In her macroscopic urine analysis, protein urea (++) and hematuria (++++) was found and microscopic urine analysis was consistent with many isomorphic RBC/hpf, 3-4WBC/hpf,and 2-3epithelial cells/hpf. Ultrasonography of the abdomen and pelvis revealed the left sided hydronephrosis of grade I a proximal ureteral dilatation, an ureterocele (27mm × 36mm in diameter) attached to the distal portion of the left

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https://doi.org/10.1016/j.eucr.2022.102085
Received 5 February 2022; Received in revised form 7 April 2022; Accepted 13 April 2022
Available online 16 April 2022

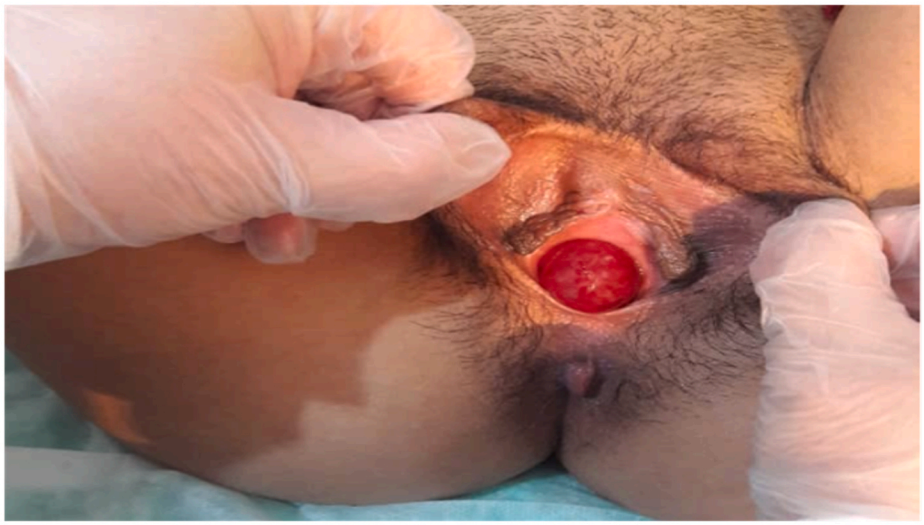

Fig. 1. A round-shape polypoid erythematous interlabial mass.

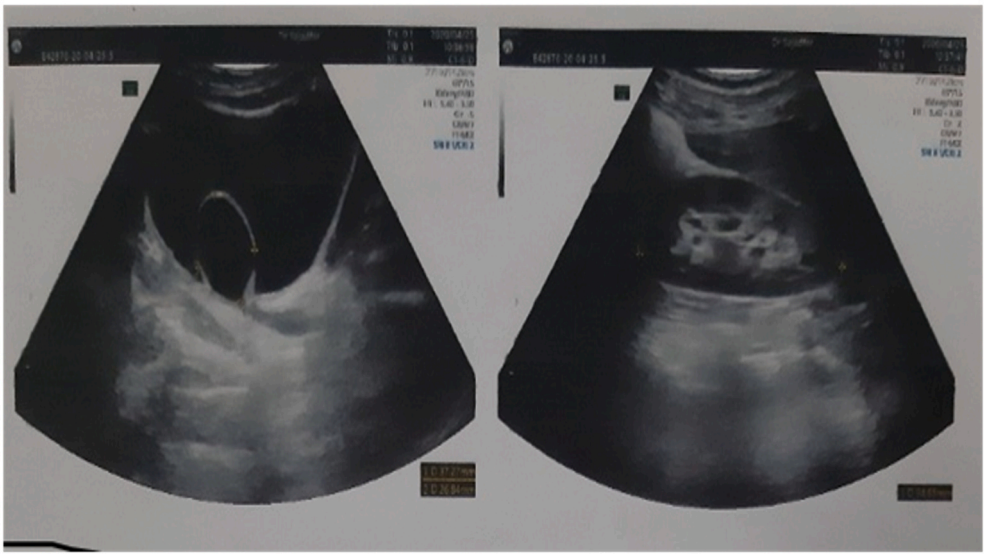

Fig. 2. Ultrasonography: ureterocele of the distal portion of the left ureter protruding into the urinary bladder (27mm × 36mm in diameter).

ureter which protruded into the urinary bladder. Urinary bladder was normal with an increased post void residual volume of about 320 cc (Fig. 2).

3. Procedure

The ureterocele was initially decreased with gentle hand pressure, and the protruded ureterocele was returned to the bladder during cystoscopy. The ureterocele showed a huge characteristic cystic pattern in the left ureteral orifice, that was treated with a horizontal incision but it was protruding from meatus intermittently then we decided to unroof protruded part of ureterocele completely and sent to pathology lab. After resection and unroofing, under the guide of cystoscopy, ureteroscopy was done because of checking the entire passage of ureter from the ureteral orifice to the kidney and normal ureteral pathway was confirmed via ureteroscopy. It was not necessary to insert double-j-stent. the interlabial mass and obstructive symptoms disappeared completely after surgery, and the follow-up sonogaghy and IVP were negative two months later. The tissue belonged to the roof of ureterocele was sent to the pathology lab. Histopathologic evaluation revealed the fibrotic tissue covered by transitional epithelium and infiltrated by chronic inflammatory cells. Findings were consistent with chronic inflammatory processes with no evidence of malignancy (Fig. 3).

4. Follow-up

She was referred to her urologist 1 month and 2 months following the surgery, and all symptoms were clearly addressed. After Two months, the IVP was normal, the ultrasound was normal, and the hydronephrosis was resolved.

5. Discussion

A ureterocele is a cystic dilatation of the distal ureter that can has a variety of morphology and symptoms.[1] The clinical appearance might range from completely asymptomatic to a full-fledged urinary tract infection. Urinary tract infections, stasis, and subsequent stone development may occur in these older children or adults.[1,5] Ureterocele can appear as a little cystic dilatation of the distal section of the intramural ureter or as a large balloon-shaped obliteration of the bladder space. It

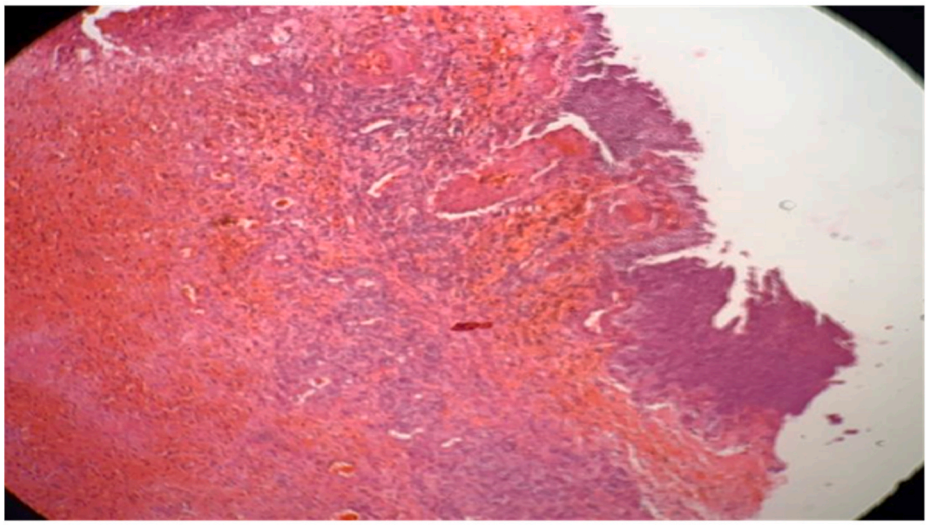

Fig. 3. Transitional epithelium of the urethra with infiltration of the chronic inflammatory cells.

has a reduced quantity of the smooth muscle fibres and fibrous tissue in a microscopic level. Ureteric mucusa lines the luminal surface.[1,4] The most common treatment for these instances is transurethral ureterocele incision, which is a minimally invasive and practical choice for this patients. In women, there are various differential diagnoses for vulvar (interlabial) mass includin inguinal hernia, urethral prolapse, labial abscess, paraurethral duct cysts, Gartner duct cysts, barttholin duct cysts, or big vaginal cysts, as well as vulvar malignancies. The case was presented with a lot of dribble and frequency. Ureterocele prolapse of the urethra is a very uncommon occurrence. The first step in treating a prolapsed ureterocele is to decompress the bulk. The significant point in this case is her presentation of vulvar mass. It's considerably remarkable that the vulvar mass may have several diagnosis including inguinal hernia, urethral prolapse, labial abscess, paraurethral duct cyst, Gartner duct cyst, barttholin cyst on malignant tumors of vagina &vulva, such as vaginal rhabdomyosarcoma, urethral cruncles, polyps or diverticulum, imperforated hymen &sexual abuse(5). So, when we encourage vulvar mass, we should ask the patient some useful questions like the presence of obstructive urinary symptoms and discharge or doubtful sexual contact. Treatment for this condition is decompression and salvage of renal function. Sometimes the examination and examination under anesthesia will be useful to determine what treatment is needed.

6. Conclusion

Ureterocele prolapse through ureter is an extremely rare presentation. Some of the presentations such as vulvar (interlabial) mass is very rare, but it is important to consider the wide range of differential diagnosis of vulvar mass.

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