International Surgery Journal
Verma S et al. Int Surg J. 2016 Aug;3(3):1672-1673
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: http://dx.doi.org/10.18203/2349-2902.isj20162773

Case Report

A rare case of giant primary calculus in female urethral diverticulum

Satyajeet Verma[1]*, Zahir Ahmad[1], Sujeet Rai[2]

[1]Department of Surgery, [2]Department of Anaesthesiology, M.R.A. Medical College, Ambedkarnagar, UP, India

Received: 15 May 2016
Accepted: 11 June 2016

***Correspondence:**
Dr. Satyajeet Verma,
E-mail: vsatyajeet@rediffmail.com

ABSTRACT

The female urethral diverticulum is a rare clinical entity and presence of primary stone in the diverticulum makes it rarer. We are reporting a case of a 60 year old woman who has consulted for hard vaginal mass associated with repeated urinary infections. The diverticulum was excised transvaginally along with extraction of giant stone of 3.5 cm, successfully.

Keywords: Female urethral diverticulum, Giant calculus

INTRODUCTION

The presence of urethral stones is rare. Urethral diverticula are estimated to occur in 1–6% of Women; although usually diagnosed between the third and fifth decade of life they can affect all age groups.[1] Stagnant urine, salt deposition and urothelial mucus also predispose to calculus formation in 1.5–10% of urethral diverticula.[2] As a result of the presence of a short urethra and the low rate of formation of vesicle stones, this pathology is even rarer in women.[3,4] Here we are reporting a case of a woman with a giant calculus in a urethral diverticulum.

CASE REPORT

A 60-year-old housewife presented to us with episodes of frequency/urgency in micturition, dysuria, for last 5 months. She also noted heaviness and lump in the anterior vaginal wall. Both the general and physical examination were normal, apart from the gynecologic examination that revealed a large mass of approximately 3 cm near the urethra as shown in Figure1. It was hard and without crepitation. The routine blood chemistry was within normal limits. But urine analysis showed with pus cells in the urine.

Figure 1: Urethral diverticulum as round mass at the distal urethra.

Plain X-ray abdomen/pelvis area revealed a radio-opaque density of 3.5 cm size just at the level of pubis. Cystourethroscopy revealed the projection of the stone into the distal urethra with the bladder mucosa and trigone were normal without vesicourethral reflex. Preoperatively injection of Levofloxacin (according to urine culture/sensitivity) was added for three days.

Before initiating the procedure (transvaginal diverticulectomy with removal of calculus), a Foley catheter no - 16 were placed. A 3 cm longitudinal incision was made in the vaginal wall as shown in Figure 2.

Figure 2: The anterior vaginal wall and periurethral fascia have been dissected exposing the urethral diverticulum and calculus.

Once the stone of 3.5 cm size was removed from the cavity and excision of diverticulum as shown in Figure 2, the vaginal wall was sewn with polydioxone 3-0 in two layers. After surgery the Foley catheter was kept in place for 8 days. Postoperative course was uneventful. A urine test on the third day was removed was done to corroborate the definitive absence of infection. For last 6 months of follow up, patient is completely symptoms free.

DISCUSSION

The urethral diverticulum is a very rare condition frequently presents with nonspecific and nonclassical symptoms and this leads to incorrect and delayed diagnosis. Classically, the presenting symptoms have been summarized as the three 'Ds': dysuria, post void dribbling and dyspareunia. Usually nonspecific genitourinary symptoms predominate.[5] The most frequent being frequency/urgency (40–100%), dysuria (30–70%), recurrent urinary tract infection (UTI) (30–50%), postmicturition dribble (10–30%), dyspareunia (10–25%) and haematuria (10– 25%).[6] It may also present with a tender mass (35%), urinary incontinence (32%), stones (1–10%), discharge of pus per urethra (12%) and retention (4%).[7] Stagnant urine, salt deposition and urothelial mucus also predispose to primary calculus formation in 1.5-10% of urethral diverticula.[2] Complete excision of the urethral diverticulum with a full opening of the urethra gives a cure rate of approximately 70%.

Generally three surgical options are available: (a) transurethral incision of the urethral communication, thereby transforming a narrow diverticulum into a wide-mouthed diverticulum; (b) marsupialization of the diverticulum sac in to the vagina by incising the urethrovaginal septum; and (c) diverticulectomy with or without a reconstructive procedure.[8]

Urethral diverticula, although comparatively rare, are frequently under diagnosed due to a lack of clinical awareness. Often, the condition is been diagnosed as interstitial cystitis, chronic pelvic pain and urethral syndrome among others. Therefore, a high index of suspicion is required in all patients with refractory nonspecific Urinary symptoms.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Martensson O, Duchek M. Translabial ultrasonography with pulsed colour-Doppler in the diagnosis of female urethral diverticula. Scand J Urol Nephrol. 1994;28:101–4.
2. Martinez-Maestre A, Gonzalez-Cejudo C, Canada-Pulido E. Giant calculus in a female urethral diverticulum. Int Urogynecol J Pelvic Floor Dysfunct. 2000;11:45–7.
3. Vanderhorst LF, Von P. Giant urethral calculus: a case report. J Urol. 1958;80:31.
4. Gaston EA, Ferrucci J. Calculus formation in an urethral diverticulum in a woman. N Engl J Med. 1939;221:379–89.
5. Leng WW, McGuire EJ. Management of female urethral diverticula: a new classification. J Urol. 1998;160:1297–1300.
6. Bennett SJ. Urethral diverticula. Eur J Obstet Gynecol Reprod Biol. 2000;89:135–9.
7. Ganabathi K, Leach GE, Zimmern PE, Dmochowski R. Experience with the management of urethral diverticulum in 63 women. J Urol. 1994;152:1445–52.
8. Aspera AM, Rackley RR, Vasavada SP. Contemporary evaluation and management of the female urethral diverticulum. Urol Clin North Am. 2002;29:617–24.

Cite this article as: Verma S, Ahmad Z, Rai S. A rare case of giant primary calculus in female urethral diverticulum. Int Surg J 2016;3:1672-3.