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Female sub urethral diverticulum: A case report and review of the literature.

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KEYS WORDS: Sub urethral diverticulum, calcified, calcul, diverticulectomy, treatment , case report

Introduction:

The urethral and sub urethral diverticulum is defined as a herniation of the urethral lining through the smooth muscle fibers that make up the urethral wall. It forms an outpouching that often communicates with the urethral lumen by a collar and protrudes at the level of the anterior vaginal wall [1]

It is a rare condition, the etiopathogenesis of which is not clear. The diagnosis is essentially clinical. Its treatment is surgical and consists of performing a diverticulectomy via the trans vaginal route [2].

Objective:

Our aim is to study the clinical, radiological and therapeutic aspects of the female urethral diverticulum through a case report.

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Case study :

A 47-year-old patient with no notable pathological history, gravida 5, para 4, consults for sensation of an intravaginal mass. On physical examination, a cystocele is observed, but palpation finds a bulging 4 centimeters mass developed on the lower third of the indurated anterior vaginal wall. There were no associated urinary signs or urinary incontinence (Figure 1).

Palpation of the mass was not painful. This mass mimicking pelvic prolapse was described on ultrasound as a calcified fibroid of the anterior wall of the vagina (Figure 2-3). The diagnosis of sub urethral diverticulum was noted.

The patient underwent a transvaginal diverticulectomy. In lithotomy position, under antibiotic cover and under loco regional anesthesia. After insertion of a urinary catheter, the diverticulum was approached by a direct vertical anterior vaginal approach opposite the mass through a U-shaped incision. The progressive dissection of the diverticulum capsule resulted in an opening of the diverticular outpouching showing the existence of an intra diverticular calculus 1.5 cm. The neck of the diverticulum showing the urinary catheter was repaired with the diverticulum bed in two planes to prevent secondary formation of an urethrovaginal fistula, a vertical sub urethral plane and a transverse submucosal plane. (Figure 4).

The post-operative care shows no complications and the patient remained under antibiotic prophylaxis. The urinary catheter was kept ten days postoperatively. Pathological examination confirmed the diagnosis of sub urethral diverticulum. The patient seen again after one month of her treatment. She was doing well and no complications were noted such as fistula or urinary tract infection.

Discussion :

The sub urethral diverticulum have been observed in 0.6 to 6% of women [3]. Often underestimated, they are discovered when complications arise. However, they should be looked for at the clinical examination before any surgery for female urinary incontinence or in case of recurrent infections.

The classic presentation of a urethral diverticulum is described by 3D, "dribbling, dysuria, dyspareunia" or delayed drops, dysuria and dyspareunia [4]. But, this triad is only observed in a minority of patients. Baradaran even assessed the correlation between 3D and urethral diverticulum in a retrospective study of 56 patients. The triad was only present in only 5% of cases [5].

The clinical picture is usually dominated by a set of non-specific genito-urinary symptoms such as pollakiuria, urgency, recurrent urinary tract infections, hematuria, chronic pelvic pain, urinary incontinence and swelling of the anterior vaginal wall [6]. Furthermore. Palpation leads the diagnosis in more than 60 to 90% of cases. Sometimes the physical examination is strictly normal. Rarely, the diverticulum presents as a urogenital prolapse.

Many treatments have been proposed. Transvaginal diverticulectomy is the only curative treatment [7]. It consists of excising the diverticulum, closing the diverticular neck and treating any associated complications. Surgery of these diverticula exposes to complications such as fistulas, urethral stenosis, stress urinary incontinence or incontinence by instability [8].

The surgery is performed under antibiotic coverage and with good drainage to ensure good progress without postoperative complications.

Conclusion:

Female urethra diverticulum is a rare condition easily diagnosed. But sometimes its management got delayed due to misdiagnosis with pelvic prolapses. It should be suspected in the presence of disorders of the lower urinary tract associated with a bulging sub urethral mass on the anterior surface of the vagina, giving or not a screeching on palpation. Surgical resection by trans-vaginal diverticulectomy in a lithotomy position is the intervention of choice.

PATIENT CONSENT:

The patient has been informed and given her consent .

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FIGURES :

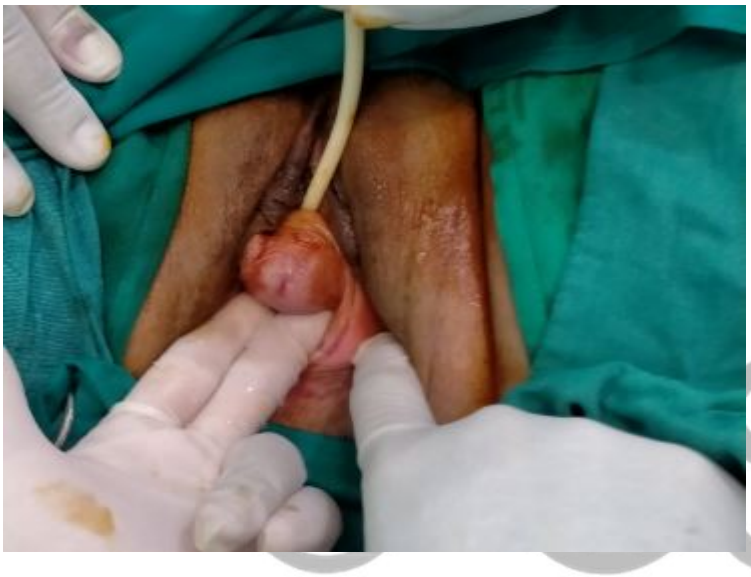

FIGURE 1: PELVIC CLINICAL EXAM SCHOWING A 4 CENTIMETRES MASS PROTRUDING THE VAGINAL WALL

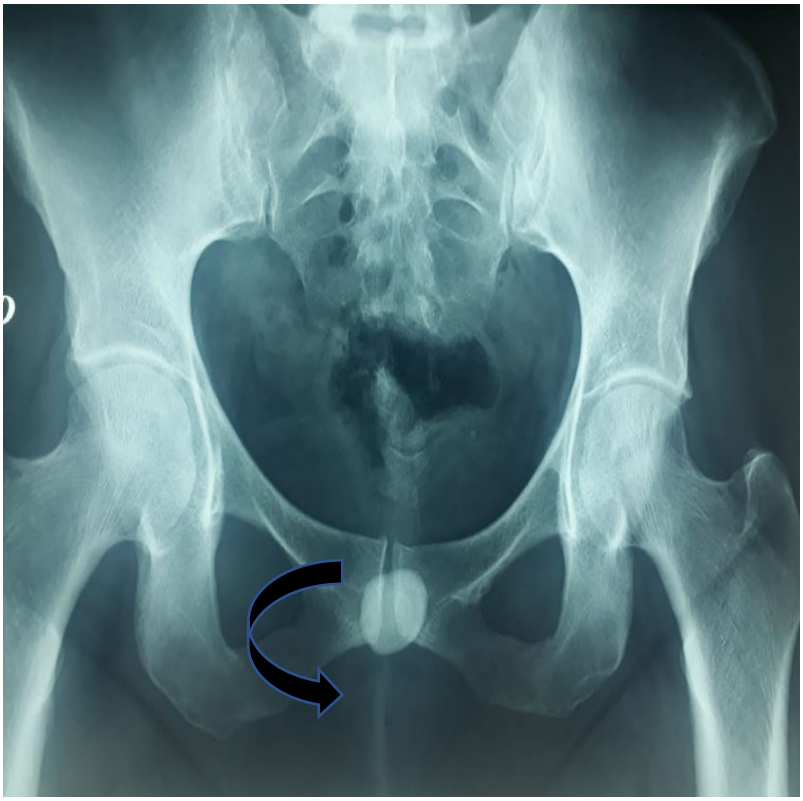

FIGURE 2: ABDOMINAL X RAY SCHOWING A CALCIFIED PELVIC TUMOR

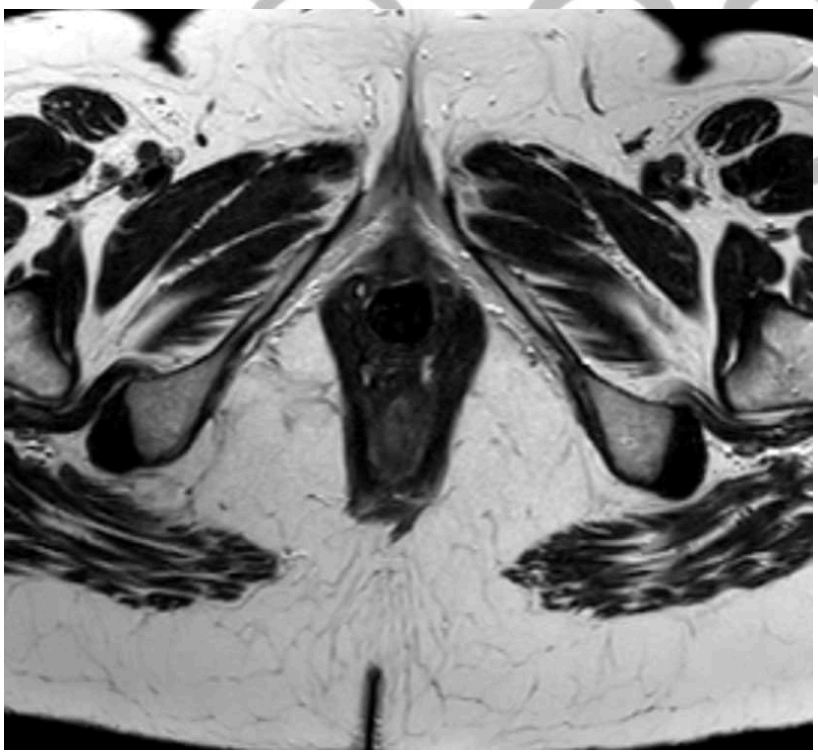

FIGURE 3: PELVIC MRI CONFIRMING THE DIAGNOSIS OF SUBURETERAL DIVERTICULUM

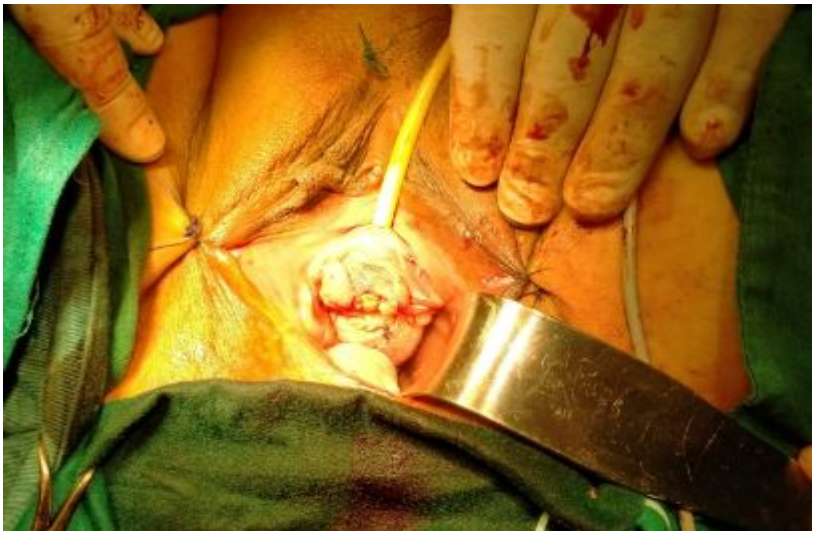

FIGURE 4: INTRAOPERATIVE VIEW OF THE DIVERTICULECTOMY

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