

Case Report

A RARE CASE OF SECOND DEGREE UTEROVAGINAL PROLAPSE WITH VESICAL CALCULUS

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ABSTRACT

Uterine prolapse is a common gynaecological disease in Indian population. It is usually associated with cystocele and or rectocele as well as enterocele. Recurrent urinary tract infections may occur in chronically unreduced cystocele leading to calculus formation, cystitis, pyelitis, pyelonephritis and renal failure. Here we present a case of vesical calculus in second degree utero-vaginal prolapse. A 63-year-old female with uterine prolapse of 6 months duration presented with dysuria. Examination revealed 2nd degree uterine vaginal prolapse with cystocele, enterocele and rectocele. Ultrasonography showed single intravesicular calculus of 3cm in size. Patient underwent open cystolithotomy and 3cm size vesical calculus was removed along with total abdominal hysterectomy with anterior colporrhaphy and posterior colpoperineorrhaphy. A long standing prolapse especially in third degree uterovaginal prolapse if untreated may cause renal complications like acute renal failure, uremia and bladder stone. We report a rare case of bladder stone caused by 2nd degree uterine prolapse for which the patient required cystolithotomy and hysterectomy.

Keywords: Uterovaginal Prolapse

INTRODUCTION

Prolapse is defined as protrusion of the pelvic organs into or out of the vaginal canal. Uterine prolapse occurs most commonly in multiparous due to result of childbirth injuries to the endopelvic fascia (and its condensations, the uterosacral and cardinal ligaments) and lacerations of muscle, especially the levator ani muscles and the perineal body, and in postmenopausal period due to oestrogen deficiency. Additional factors promoting uterine prolapse include obesity, asthma, chronic bronchitis, bronchiectasis, chronic constipation ascites, lifting heavy weights, subinvolution of the uterus, myohyperplasia of the uterus. There is often an accompanying cystocele and or rectocele as well as enterocele (Martin, 1991). Hydroureter and hydronephrosis occur due to downward movement of bladder along with uterine prolapse which involves the lower end of the ureters. A large cystocele with resultant angulation of the urethra during straining, causes difficulty in emptying the bladder which is usually asymptomatic initially, but recurrent urinary tract infections may occur in chronically unreduced cystocele leading to calculus formation, cystitis, pyelitis, pyelonephritis and renal failure. Impairment of renal function is generally limited to neglected cases (Filiz *et al.*, 1998).

CASES

We present a case of a 63-year-old female with chief complaint of dysuria for 3 months. She had the history of uterine prolapse 6 months ago. Physical examination showed tenderness over the right and left flank region. The pelvic examination revealed 2nd degree uterine vaginal prolapse with cystocele, enterocele and rectocele. Laboratory investigations revealed Hb 11g/dl, blood urea nitrogen 17mg/dl, creatinine 0.6 mg/dL, routine urine analysis showed WBC numerous/high power field. The urine culture revealed a *Proteus mirabilis* infection. Ultrasonography showed single intravesicular calculus of 3cm in size (Figure 1). Urology opinion was taken and patient prepared preoperatively with initial tab Norfloxacin 400mg for 7 days with plenty of oral fluids. Then patient underwent open cystolithotomy and 3cm size vesical calculus was removed with the help of the urologist (Figure 2). Also Total abdominal hysterectomy with anterior colporrhaphy and posterior colpoperineorrhaphy, was performed in the same setting. The postoperative course was uneventful with catheterisation maintained for 7 days, and the

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patient was discharged in a stable condition. Four weeks after discharge, she underwent a plain abdominal x-ray and abdominal sonography. No urolithiasis or hydronephrosis were found. Since then, the patient has regularly visited our outpatient department since 6 month and no urolithiasis was noted.

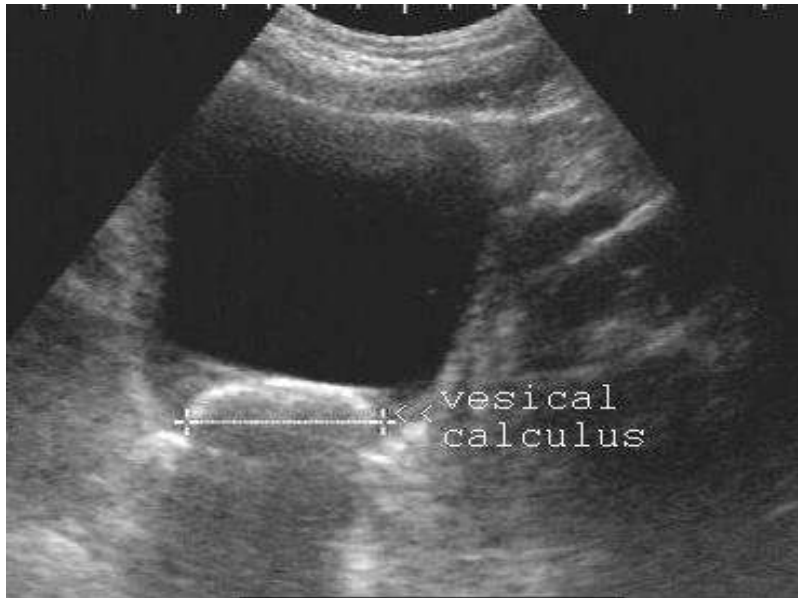


Figure 1: Ultrasound picture of bladder stone



Figure 2: Picture of removed vesical calculus

DISCUSSION

Genital prolapse is a common and distressing condition as it causes discomfort with daily activities as well as with sexual activity in postmenopausal women. The anatomical supports of the female genital organs are the pelvic cellular connective tissue and the levator ani muscle group. The urogenital hiatus remains closed due to the active basal tone of the levator ani muscles. Injury of the endopelvic fascia (uterosacral and cardinal ligaments) and levator ani muscle will result in uterine prolapse (Filiz *et al.*, 1998). Excessive stretching of the uterosacral and cardinal ligaments occurs during normal vaginal and

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instrumental delivery resulting in injury to levator ani muscle. Prolapse usually presents with mass per vagina, discomfort in daily activities, bowel symptoms like constipation, bladder symptoms like incomplete evacuation, stress incontinence, dysuria, increased frequency of micturition. The incidence of urinary tract infection is 74% in patients of uterine prolapse (Milton *et al.*, 1974). Usually bladder stones are seen with greater degree prolapse due to retention of the urine which is secondary to sharp angulation of the urethra against the pubourethral ligament during straining. The formation of calculus is favoured by stasis, infection and hypercalcaemia. Diet with excessive intake of milk and absorbable alkalis is thought to be responsible in some cases. Incomplete evacuation also favours cystitis. Bladder infection may ascend up to produce pyelitis or pyelonephritis. Bladder stone is one of the cause for irreducible prolapse sometimes (Kevin *et al.*, 1982). As the uterus descends; the downward traction, causes the bladder trigone and lower ureters to be dragged outside the pelvis. The caudal displacement of the trigone results in compression of the ureters between the uterus and the medial borders of the genital hiatus. Complete uterine prolapse results in an hourglass configuration to the bladder (Young *et al.*, 1984). The reported incidence of ureteric dilatation in prolapse has varied in different series from 25% to 80% (Chapman, 1975; Frederick, 1998), probably because of degrees in the severity of the prolapse. The greater the prolapse, the more the ureters will be obstructed. Klemmner found ureteric dilatation and hydronephrosis was 5% in first-degree prolapse, 26% in second-degree prolapse, and 40% in third-degree prolapse (Klemmner, 1952). Renal function is remarkably seldom damaged. The incidence of acute renal failure is 1.4%. Acute renal failure can be so severe as to cause fatal uremia (Kretschmer and Kanter, 1937). A diagnosis of obstructive uropathy, ureter and bladder stone is made by excretory urography or sonography. Repositioning of the uterus can also improve the hydronephrosis and acute renal failure. The best surgical management of a uterine prolapse consists of a composite operation. In addition to vaginal hysterectomy, careful anterior colporrhaphy to correct the cystocele and stress incontinence and posterior colpoperineorrhaphy to greatly extend the posterior vaginal wall should be performed.

Conclusion

Uterine prolapse is a common gynaecological disorder in India. A long standing prolapse usually of 3rd degree prolapse, if untreated may cause renal complications like acute renal failure, uremia and bladder stone. Here we report a rare case of bladder stone caused by 2nd degree uterine prolapse for which the patient required cystolithotomy and hysterectomy.

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