



CASE REPORT

Incarcerated Procidentia Caused by Multiple Vesical Calculi: A Rare Case Report

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Introduction

Genital prolapse is a very common gynaecological condition. Vesical calculi causing irreducible prolapse is a rare presentation of this disease, which require urgent treatment. William gardener of Montreal as per Gladys kay [1] reported first case of bladder stones with procidentia. From 1950 to 2018, only 17 case reports of stones with genital prolapse were published in English language [2].

Bladder calculi in prolapse patient are not common and usually not considered a possibility during preoperative workup. Radiological workup may miss the diagnosis of bladder stones if the stones are lying in cystocele outside vulva and not included in the scan area. Prevalence of coexisting bladder stones and pelvic organ prolapse is not known as only very few case reports are available in literature. We present a case of irreducible procidentia with vesical calculi.

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Case Report

History

A 65-year-old menopausal lady from rural area presented with complain of mass coming out per vaginum since 10 years. She had two vaginal deliveries at home. Mass increased in size gradually, she sought medical advice for the first time in past 10 years. Patient was not able to reduce the mass herself since 3 years. She also had increased frequency of micturition and pain during micturition since 1 month, patient developed excruciating pain during micturition since few days for which she came for consultation. No history of any other pre-existing illness.

Examination

General examination revealed hypertension. Rest examination was normal. Local examination revealed procidentia with large cystocele and rectocele, vaginal wall was red, edematous and crescent ulceration was present at mucocutaneous junction of posterior fourchette. Mass was tender and non-reducible.

Investigations

Haemoglobin 9.8 gm%, Serum Urea 34.4 mg/dl, Serum Creatinine 1.1 mg/dl, Urine examination showed innumerable RBCs and few WBCs. Abdominal Ultrasound was suggestive of bilateral moderate hydronephrosis, and uterus was not visible (as it was lying outside vulva).

Management

Patient was started on empirical antibiotics after sending urine for culture sensitivity. Dressing of swollen procidentia



Fig. 1 X-ray abdomen and pelvis including the prolapsed part showing three vesical calculi

done with glycerine, magnesium sulfate ointment, and estrogen cream.

Patient was started on antihypertensive therapy. Patient was given analgesia and mild sedative to try reducing the prolapse, while doing reduction-crackling sensation felt and was able to reduce the prolapse. X-ray abdomen and pelvis was done which showed 3 large hyperechoic areas in the region below the normal level of bladder (Fig. 1). Ultrasound was also repeated after reduction of prolapse, which confirmed 3 large calculi in urinary bladder and no calculus noted in kidney and ureters.

Patient was planned for combined procedure of Abdominal Cystolithotomy with Vaginal hysterectomy, anterior colporrhaphy with uterosacral ligament suspension and posterior colpoperineorrhaphy.

One unit blood transfusion was done. Bladder was catheterised for 14 days and discharged on postoperative day 5. Figure 2a shows procidentia and cystocele with vesical calculi (after antibiotics and hygroscopic dressing). Figure 2b shows three vesical stones of size 3–5 cm which were removed, and Fig. 2c is showing vertical suprapubic incision given for cystolithotomy and retropubic drain at lower end (stones removed are kept in kidney tray).

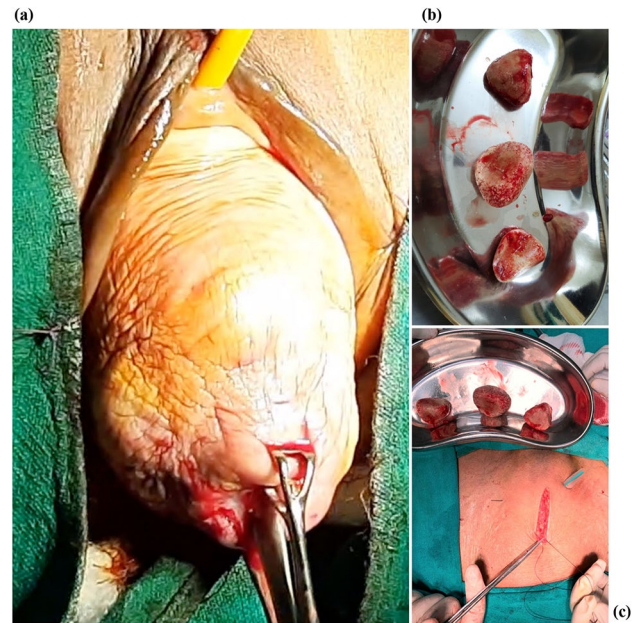


Fig. 2 **a** Left side showing procidentia with vesical calculi (after antibiotics and hygroscopic dressing). **b** Right upper showing three vesical stones of size 3–5 cm removed. **c** Right lower showing vertical suprapubic incision for cystolithotomy and retropubic drain at lower end (stones removed are kept in kidney tray)

Follow Up

Patient reviewed on post-operative day 14, catheter was removed, and repeat abdominal ultrasound was done which showed improvement in hydronephrosis. Patient is continent and doing well at 3-month follow up.

Discussion

Vesical calculi are rare in female as compared to males. Approximately only 5% of all Bladder stones occur in women and are usually associated with foreign bodies (sutures, synthetic tapes, or meshes) or urinary stasis [3]. Short female urethra can expel the nuclei before they can form stones in bladder. But in cases where there is residual urine/stasis like cystocele chances of infection, and stone formation are more. With time stone increases in size, number and can cause significant urinary symptoms, urosepsis, hydronephrosis, and irreducibility of prolapse. Many patients of prolapse present with urinary complaints that are attributed to cystocele but similar complaints can also be attributed to vesical stones, which are usually never thought of. For reducing edema of prolapse part magnesium sulfate and glycerine is used commonly, use of common salt and sugar is also mentioned in a case report⁴. In some of

the cases reported in past, diagnosis of vesical stone was made intraoperatively or postoperatively inspite of CT scan and IVP done preoperatively because of much lower position of vesical calculi due to prolapse and cystocele. Plain radiograph lower pelvis that covers the prolapsed part should be done in all cases of long-standing prolapse and in cases where prolapse is difficult to reduce. It is less expensive and can be easily done in low resource setting. Wherever available CT scan can be done. Ultrasound examination is usually done in prolapse patient to look for any additional pathology in adnexa and abdomen. Before performing an abdominal ultrasound prolapse should be reduced. When patient present with irreducible prolapse, that case need urgent management to prevent the progression of renal damage and urological sepsis. Various methods of bladder stone removal are extracorporeal shockwave lithotripsy, endoscopic cystolithotripsy, and open surgery [4]. As the stones were large and multiple, open surgery was needed. In literature cases done by vaginal cystolithotomy and abdominal cystolithotomy have been mentioned. We opted for abdominal cystolithotomy as it poses less risk of vesicovaginal fistula formation and with vaginal route there is additional risk of ureteral injury. Vertical incision on the dome of bladder was given to avoid injury to ureter [5].

Conclusion

Cases of irreducible prolapse mentioned in literature are almost always due to cystolithiasis.

In all long standing cases of prolapse, plain x-ray lower pelvis that covers the prolapsed part can be immensely helpful especially in low resource setting where CT scan is not available. Ultrasound can miss the stones in bladder if prolapse is not reduced. All transabdominal ultrasound in cases of prolapse should be done after reducing the prolapse. If calculus is missed preoperatively it may lead to progressive damage, worsening of hydronephrosis and will need second sitting of surgical and anesthesia risk and also operative difficulties.

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Declaration of HELSINKI of 1975, as revised in 2008 (5).

Informed Consent Patients signed informed consent regarding publishing their data and photographs.

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