

# RECURRENT VESICAL CALCULUS IN ASSOCIATION WITH PROLAPSE OF UTERUS

(A Case Report)

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Malpas (1955) stated that formation of calculi in cystoceles is sometimes seen. The occurrence is usually coincidental. A case of vesical calculus in association with prolapse of uterus is presented as the notable feature of this case was multiple calculi seen in one cystocele making the prolapse irreducible.

## CASE REPORT

A woman aged about sixty years was admitted on 5-2-1971 with history of difficulty while passing urine, frequency of micturition of six months' duration and dysuria and mass per vagina since five years. Patient was admitted at a district hospital for frequency and dysuria eight years ago where she was operated upon and a stone was said to have been removed. Patient was a multiparous woman and had attained menopause fifteen years ago.

On examination, patient's general condition was satisfactory. Pulse 84/minute, regular, volume good. Blood pressure 110/70 mm Hg. Respiratory and cardiovascular systems, nothing abnormal detected. Per abdomen—there was a suprapubic scar of 2"; tenderness was present over the suprapubic region; no mass felt.

Vaginal examination showed third degree prolapse with cystocele ++; ulceration of cervix +. On palpation of cystocele there was

crackling sensation present. Bladder sounding showed that the entire bladder was below the level of urethra and filled with stones. Prolapse was irreducible. No adnexal pathology was detected on rectal examination. The case was clinically diagnosed as third degree uterine prolapse with cystocele and multiple vesical calculi.

## Investigations

Hb.%; E. S. R.; W. B. C.; total and differential counts; blood urea and fasting blood sugar were within normal limits. Plain X-ray of the pelvis showed that the entire bladder was below the suprapubic arch and filled with calculi (Fig. 1). Plain X-ray of abdomen showed no calculi in kidney ureteric region. Urine showed plenty of pus cells and pus casts, reaction was alkaline. On culturing the same, coliforms were isolated and they were sensitive to chloromycetin.

Patient was treated with a course of chloromycetin 250 mg. 6 hourly and ammonium chloride to acidify the urine. Repeated attempts at bladder wash failed as the bladder was full of calculi. Case was taken for vaginal hysterectomy with vaginal cystolithotomy. After the reflection of the vaginal flaps, vaginal cystolithotomy was done first as we could not push the bladder up. One hundred and twelve chalky white calculi of varying sizes were removed (Fig. 2). Bladder wall was thickened and fibrosed; a thorough bladder wash was given and the bladder closed with atraumatic catgut stitches. Vaginal hysterectomy was completed and a self retaining catheter was passed through the urethra. Recovery in the postoperative period was uneventful. She was

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discharged on twentieth post-operative day, with advice to come for follow up. She returned only once three months after the operation. No stones were palpable in the bladder at that time. Urine culture was negative.

Two years later i.e., on 11-12-1973, patient was readmitted again with history of frequency and dysuria of one year duration. On examination, vault and perineorrhophy wounds had healed well, but a hard mass was palpable in the bladder neck region; bladder sounding done and stone was felt. Urine was alkaline in reaction. Urine examination again showed presence of pus cells and culture yielded coliforms which were sensitive to chloromycetin and gentamycin. Patient was put on chloromycetin 250 mg. 6 hourly.

Case was diagnosed as a recurrent vesical calculus and cystolithotomy was done procuring a large calcium oxalate stone measuring 3" x 2" x 2". Bladder wall was shrunken in capacity, on its left lateral wall, a thickened nodular mass was felt. Needle was inserted into the same and pus was aspirated. This was then incised and pus was drained. Bladder wash was given and closed with suprapubic catheter. A drainage tube was kept close to the bladder and abdomen closed. Patient was put on chloromycetin 250 mg. 6 hourly in the postoperative period. The drainage tube was taken out after 48 hours and suprapubic catheter on 10th postoperative day. There was some leakage of urine through the suprapubic wound which stopped on strapping and putting an indwelling catheter.

On twentieth postoperative day, patient complained of incontinence of urine. On examination, with the help of methylene blue a very minute fistula close to the vault of vagina was seen. Bladder capacity was reduced to 100 cc. Repeat urine culture was negative. As the patient refused further treatment, she was discharged.

#### Discussion

The formation of calculus is favoured by stasis, infection and hypercalcinuria. Diet with excessive intake of milk and absorbable alkalis is thought to be responsible in some cases. Urinary stasis due to stricture urethra or prostatic enlargement is known to predispose to vesical

calculus Boyd (1961). A similar picture is seen even with cystocele wherein stasis is favoured by descent of bladder. During the five years (1967-71), 1,348 cases of uterine prolapse were admitted to the Cheluvamba Hospital, Mysore. Six of them were associated with vesical calculus; giving an incidence of 0.45%. In this patient we are not sure whether the stasis or infection that was primarily responsible for stone formation. Patient underwent cystolithotomy for the first time eight years ago. At that time, whether she had cystocele or not is not known, since there is no past record of clinical and operative findings.

When we first saw the patient with cystocele and multiple vesical calculi, her urine was alkaline, stains and infection were predominant. In fact she had all the features common to phosphatic calculi. Phosphatic stones are known to recur particularly in the presence of urea splitting bacteria Chute and Suby (1940). The stone that was removed for the second time by us was an oxalate stone. Probably the spicules caused the tiny fistula in this patient. The smooth phosphatic stones are less liable to cause symptoms. The bladder wall in this case was thickened and contained a pocket of pus, its capacity was also reduced, indicating chronic cystitis which is known to favour formation of vesical calculus.

Treatment of calculi, once formed depends on their site and nature. Stones in renal pelvis and bladder require surgical interference. Since phosphatic calculi are found only in alkaline urine, acidifying the urine by administering ammonium chloride daily may be effective. Cystine and urate stones are sometimes dissolved by making the urine persistently alkaline Davidson (1966).

We had hoped the first time that the

calculus might not recur as we had successfully treated both urinary infection and cystocele, but to our surprise she came again. This shows an inherent tendency for stone formation in the patient. Either the recurrent urinary infection or diet might be the cause.

Summary

A case of multiple recurrent vesical calculus in association with uterine prolapse is presented. Causation and treatment is mentioned.

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See Figs. on Art Paper VIII