

## Case report

### Multiple vesical calculi complicating uterine prolapse

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#### Abstract

Vesical calculus associated with uterovaginal prolapse is very rare. We report a case of a 70-year-old multiparous lady with third degree uterovaginal prolapse for twenty years. Presence of multiple vesical calculus in the cystocele was noted on ultrasonography and x-ray pelvis while undergoing investigation for acute urinary retention. Vaginal hysterectomy with pelvic floor repair followed by suprapubic cystolithotomy was done in the patient. Multiple vesicle calculus were removed. Post operative course was uneventful. Bladder outlet obstruction resulting from prolapse is suspected to be the inciting factor in stone formation though the casual relationship between prolapse and vesical calculus is not established.

**Keywords:** hysterectomy, uterovaginal Prolapse, vesical calculi

#### Introduction

Vesical calculi complicating uterovaginal prolapse is very uncommon. It presents diagnostic dilemma and operative challenges to the managing team because of its rarity.

#### Case Report

A 70-year-old multiparous postmenopausal lady presented with mass coming out per vaginum for twenty years which was gradually increasing in size. She also had difficulty in passing urine for one year. Twenty days prior to admission she had acute urinary retention for which she went to the nearby hospital where foleys catheterisation was done. Ring pessary was inserted for uterovaginal prolapse and she was referred to our hospital. On examination, her vitals were stable and no mass was palpable per abdomen. Local examination revealed third degree uterovaginal prolapse with cystocele with rectocele. Per vaginal examination revealed uterus to be of normal size. Multiple vesical calculus was diagnosed following ultrasonography and X-ray pelvis scanning of the pelvis. Ring pessary was removed later in view of foul smelling discharge.



**Figure 1:** X- ray pelvis showing multiple vesical calculus with ring pessary in situ

Her urine routine and microscopic examination showed features of urinary tract infection for which she was treated with parenteral antibiotics for seven days .

Vaginal hysterectomy with pelvic floor repair was done for uterovaginal prolapse followed by suprapubiccystolithotomy under combined spinal and epidural anaesthesia . Multiple vesical calculi wereremoved.



**Figure 2:** Multiple vesical calculi retrieved after suprapubic cystolithotomy

Post operative period was uneventful. Per urethral catheterisation was kept for 14 days. She was then discharged in satisfactory condition. At one month follow up the patient was continent and the urine was sterile.

### Discussion

Vesical calculus complicating uterine prolapse is very rare. Though vesical calculi are common in men, they are found in less than 2% in women<sup>1</sup>. Long standing pelvic organ prolapse causing urinary stasis, urethral kinking coupled with chronic infection have been thought to be the predisposing factor for stone formation.<sup>2</sup> Most of the cases reported in the literature are the association of incarcerated uterine prolapse with vesical calculus. Vesical calculus complicating uterine prolapse presents a great diagnostic dilemma and unique operative challenges because of its rarity. Whether to perform hysterectomy and cystolithotomy as one stage or two stage procedure can be a common dilemma. If done under the same setting which should be performed first and what type of incision in the bladder should be made can be some other dilemmas.<sup>3</sup> Vesical calculus may be removed through a vaginal or suprapubic incision or by extracorporeal shockwave lithotripsy.<sup>4</sup> Open cystolithotomy allows easier removal of the stones, minimizes subsequent vesicovaginal fistula formation and has little associated morbidity.<sup>4</sup>

In circumstances where the stones are numerous cystolithotomy facilitates easy and complete removal. In our case vaginal hysterectomy was performed first followed by suprapubic cystolithotomy. Vertical incision was given over the anterior wall of the bladder, multiple stones were retrieved ( twelve in number) and bladder was closed in two layers. Some authors strongly recommend the vaginal route, as it avoids the abdominal scar and permits the surgical correction of prolapse in the same sitting. In comparison to transverse incision, a vertical incision on the bladder is always preferred to avoid any ureteric injury.<sup>3</sup>

### Conclusion

Our case has highlighted that any case of pelvic organ prolapse presenting with acute urinary retention, a possibility of vesical calculus should be kept in mind. Further investigation like ultrasonography and x-ray pelvis can help us to reach the diagnosis. Vaginal hysterectomy followed by suprapubic cystolithotomy is a safe option with little associated morbidity.

### References

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