

CASE REPORT

Secondary Vaginal Stone Around a Forgotten Vaginal Pessary in a Patient with a Vesicovaginal Fistula

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INTRODUCTION

Genital prolapse is globally estimated to be 2-20% in women under the age of 45 years.¹ Since the last 2000 years vaginal pessaries have been used successfully to treat pelvic organ prolapse. These pessaries are indicated in, elderly women with genital prolapse who have significant comorbidities and are high-risk candidates for pelvic floor reconstruction surgery, in women who desire future childbearing, in women who want temporary relief prior to definitive surgery and in women who do not desire or who cannot afford a surgical repair.

In Nepal the use of vaginal pessary for the treatment of genital prolapse has been estimated to be 25%.² When used properly, pessaries are effective in correcting pelvic organ prolapse and it also improves the quality of life. It can be properly fitted in 78% of patients with approximately 50% of those properly fitted continuing to use the pessary a year later.^{3,4} However vaginal pessaries are associated with various side effects like vaginal discharge, infection and can sometimes be associated with uterovaginal, urinary and rectal fistulas which occur when the pessary is neglected. Vaginal calculi formed of urinary salts are of rare occurrence. We present a case of neglected vaginal pessary, which was associated with a vaginal calculus in a patient with vesicovaginal fistula.

CASE REPORT

A 56-year-old multiparous woman presented to the outpatients department with complaints of worsening urinary incontinence and she was currently having dysuria and she was febrile. Six years ago she had visited a local health post for continuous dribbling of urine and was detected to have genital prolapse for which she was conservatively managed with an insertion of a

vaginal ring pessary. This dribbling of urine had been present for the last two years. After pessary placement the patient did not have any follow-up visits, as she was asymptomatic and the urinary dribbling had decreased. However after a year she started to develop urinary incontinence, which was now continuous.

Examination revealed an impacted foreign body, which was occupying the entire vaginal cavity. Examination under anesthesia revealed a large foreign body, which was eight centimeters in size and was stony hard in consistency with a smooth and regular surface. There was also presence of continuous dribbling of urine from around the foreign body. This foreign body was identified as a vaginal stone and was of term fetal head size and was impacted. It was very difficult to remove and thus we had to use a perforator with which was drilled into the vaginal calculi, which was broken down and removed piece by piece. After removing some amount of the calculi we could visualize the red rubber vaginal pessary, which was embedded beneath it. The pessary was subsequently retrieved in with a tenaculum, which was entrenched within the vaginal calculi (Fig. 1). After the removal of the ring pessary a vesicovaginal fistula was identified on the vaginal wall which was 2 cm × 1cm in size. Due to the existing tissue inflammation it was decided to postpone definitive fistula repair to a later date. As the fistula was large, the bladder was not drained with a urethral catheter or suprapubic tube. Topical estrogen therapy was initiated postoperatively.

DISCUSSION

Vaginal pessaries are used commonly in women in Nepal with genital prolapse who are either poor candidates for surgery or



Fig. 1: Vaginal pessary embedded inside the foreign body

in those who cannot afford pelvic floor reconstruction surgery. However, the efficacy of these pessaries in treating pelvic organ prolapse is not known.⁵

Complications are known to occur with pessary use, although with proper use, they are rare. Unfortunately older patients and those living far away from health care facilities can have problems in remembering and adhering to regular follow-up. Majority of the associated complications are usually minor and include irritation, infection and erosions.⁶ The major complications that are associated is common with neglected vaginal pessaries and include vesicovaginal fistula, rectovaginal fistula, small bowel incarceration, hydronephrosis, pyelonephrosis, urosepsis, cervical entrapment, vaginal reepithelialization or entrapment, and vaginal or cervical cancer.⁷ Chronic irritation leading to ulceration and re-epithelialization from the neglected ring pessary is the likely cause of the entrapment of the pessary.⁸ Treatment of embedded, entrapped, or epithelialized pessary includes fragmentation of the device, digital separation, or excision of excess vaginal tissue, often under general anesthesia.⁹

Calculi composed of urinary salts are uncommon outside the urinary tract.¹⁰ These stones may be primary or secondary. Primary stones are formed in the vaginal cavity due to the deposition of urinary salts as a result of continuous urinary leakage into the vagina and they have been described in association with urinary leakage caused by vesicovaginal fistulas, urethrovaginal fistulas, an ectopic vaginal ureter and incontinence owing to a neurogenic bladder. A secondary vaginal stone is formed around a foreign body in the vagina such as a vaginal ring pessary, displaced intrauterine contraceptive devices,¹¹ surgical sutures and other forgotten materials placed in the vagina. Rarely, a vesical calculus may migrate into the vagina because of an ulceration of the vesicovaginal septum and grow in the vagina as a secondary calculus.¹² Most of the reported cases are primary, struvite and carbonate apatite calculi associated with vesicovaginal fistulas.¹³

In our case when this patient visited the local health post for continuous dribbling of urine, genital prolapse was diagnosed and a vaginal ring pessary was inserted but the health care giver did not identify the already existent vesicovaginal fistula and thus this led to the formation of the secondary vaginal stone.

Patient education and regular follow-up is necessary to prevent such complications and it is of prime importance when these pessaries are inserted. Patients, caregiver or family member (if the patient has dementia) should be aware of pessary placement and follow-up requirements. Topical estrogen supplementation may help decrease vaginal irritation and erosions. It is recommended that follow-up visit every three months for the first year followed by every six months is needed.³

Vaginal pessaries play an important role in the management of pelvic organ prolapse in resource poor settings and in those with significant comorbidities and are generally safe. Severe complications are rare and are associated mostly with neglected pessaries. With patient education and regular follow-up, majority of the pessary related complications could be virtually avoided.

REFERENCES

1. World Health Organization. Report on the Regional Reproductive Health Strategy Workshop: South-East Asia Region. Geneva: WHO, 1995.
2. Marahatta A, Shah A. Genital prolapse in women of Bhaktapur, Nepal. *Nepal Med Coll J*. 2003 Jun; 5(1):31-33.
3. Wu V, Farrell SA, Baskett TF, Flowerdew G. A simplified protocol for pessary management. *Obstet Gynecol* 1997;90: 990-94.
4. Sulak PJ, Kuehl TJ, Shull BL. Vaginal pessaries and their use in pelvic relaxation. *J Reprod Med* 1993;38:919-23.
5. Pott-Grinstein E, Newcomer JR. Gynecologists' patterns of prescribing pessaries. *J Reprod Med* 2001;46:205-08.
6. Bash KL. Review of vaginal pessaries. *Eur J Obstet Gynecol Reprod Biol* 2000;117:4-9.
7. Vierhout ME. The use of pessaries in vaginal prolapse. *Eur J Obstet Gynecol Reprod Biol* 2004;117:4-9.
8. Nallendran V, Hannah L, Watson AJ. Neglected vaginal ring pessary. *J Obstet Gynaecol* 2006;26(3):274-75.
9. Arias BE, Ridgeway B, Barber MD. Complications of neglected vaginal pessaries: Case presentation and literature review. *Int Urogynecol J* 2008;19:1173-78.
10. Barbagli G, Selli C, Masini G, Carini M, Lenzi R. Vaginal calculi associated with vesicovaginal fistula. *Ital J Surg Sci* 1985;15:85-88.
11. Beedham T, Rao K. Giant vaginal stone with embedded contraceptive device. *J R Soc Med* 2001; 94(10):522-23.
12. Raghavaiah NV, Devi AI. Primary vaginal stones. *J Urol* 1980;5:771-72.
13. Patankar S, Dobadha S, Bansali M. Vesicovaginal fistula with secondary vaginal stones. *J Laparoendosc Adv Surg Tech A* 2006;16(4):386-89.