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A Case of Vesicovaginal Fistula and Obstructive Uropathy Caused by a Long-Forgotten Incarcerated Vaginal Pessary

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Abstract: ***Aim & Background**: Vaginal ring pessaries are a common and effective non-surgical treatment for pelvic organ prolapse, but their long-term use requires regular monitoring. A forgotten or neglected pessary can lead to serious complications, including vaginal erosion, infection, and fistula formation. This report describes a severe case of vesicovaginal fistula resulting from an incarcerated pessary. **Case Description**: A 74-year-old woman presented with a one-month history of continuous urine dribbling. She had a ring pessary inserted for uterine prolapse five years prior but had been lost to follow-up for the last four years. On examination, the pessary was found deeply embedded within the vaginal mucosa, creating a dense, solid mold. A CECT urogram revealed the pessary was impacted along the posterolateral wall of the bladder, causing a vesicovaginal fistula and secondary left-sided hydroureteronephrosis. The pessary was successfully removed under anesthesia via railroading technique. **Conclusion**: Long-forgotten pessaries can lead to severe urogenital complications, including fistula and obstructive uropathy. This case highlights the critical importance of patient education regarding the need for regular pessary care and follow-up. **Clinical Significance**: Clinicians should maintain a high index of suspicion for an incarcerated pessary in elderly women presenting with chronic vaginal discharge, bleeding, or new-onset urinary incontinence, even if the patient does not recall having one. Imaging, such as a CECT urogram, is invaluable in diagnosing associated complications like fistulas and planning surgical management.*

Keywords: Incarcerated Pessary; Forgotten Pessary; Vesicovaginal Fistula; Obstructive Uropathy; Pelvic Organ Prolapse

1. Introduction

Pelvic organ prolapse (POP) is a common condition affecting the quality of life of many women, especially in the elderly population. Vaginal pessaries offer a safe and effective non-surgical management option.[1] However, their use is not without risks. Complications, though rare, can be severe and typically arise from long-term, unmonitored use.[2] These include vaginal ulceration, bleeding, infection, and, in extreme cases, incarceration, where the pessary becomes deeply embedded in the vaginal wall.

An incarcerated pessary can lead to chronic inflammation and pressure necrosis of adjacent tissues, resulting in the formation of fistulas into the bladder (vesicovaginal) or rectum (rectovaginal).[3] This case report details a severe complication of a forgotten ring pessary that led to the formation of a vesicovaginal fistula and obstructive uropathy, underscoring the necessity of diligent follow-up care.

2. Case Description

A 74-year-old woman presented to the gynecology outpatient department at the Institute of Maternal and Child Health, Kozhikode, with a chief complaint of continuous dribbling of urine for the past month. She had no history of fever or foul-smelling discharge.

Her history revealed that a ring pessary had been inserted for pelvic organ prolapse five years ago at a local hospital. She had followed up for the first year but had not had the pessary checked or changed for the last four years. On pelvic examination, the pessary was not immediately visible but was palpable high in the vagina. It was found to be deeply embedded into the vaginal mucosa, especially along the lower and upper anterior aspects, and was covered by eroded tissue.(Figure 1)

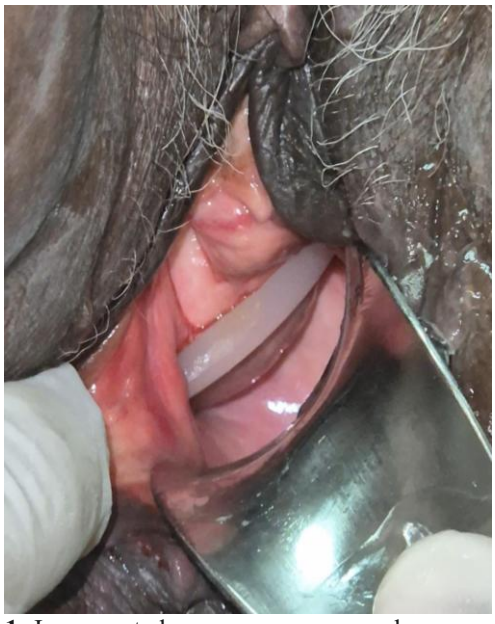

Figure 1: Incarcerated pessary on per speculum examination

A urology consultation was sought. An initial ultrasound of the pelvis was attempted, but the examination was inconclusive as the patient was unable to hold her bladder. A contrast-enhanced CT (CECT) urogram was performed, which provided a definitive diagnosis. The CECT report described a ring pessary impacted obliquely within the vagina. The pessary was noted to be eroding through the posterolateral wall of the bladder, confirming a vesicovaginal fistula. There was contrast extravasation from the bladder into the vagina. The pessary was also causing compression of the left vesicoureteric junction, leading to secondary left-sided hydroureteronephrosis with a renal pelvic anteroposterior diameter of 2.3 cm.(Figure 2 & 3)

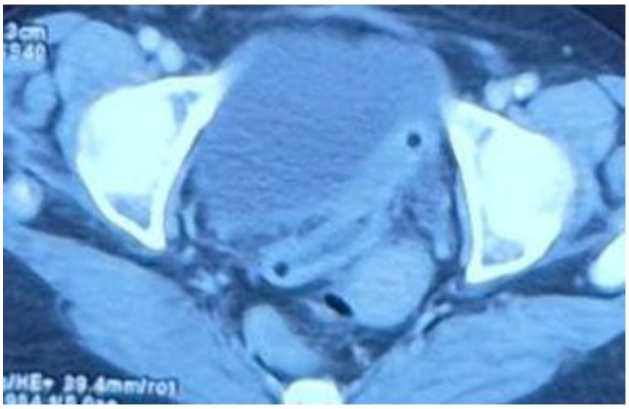

Figure 2: CECT Pelvis showing pessary embedded within bladder

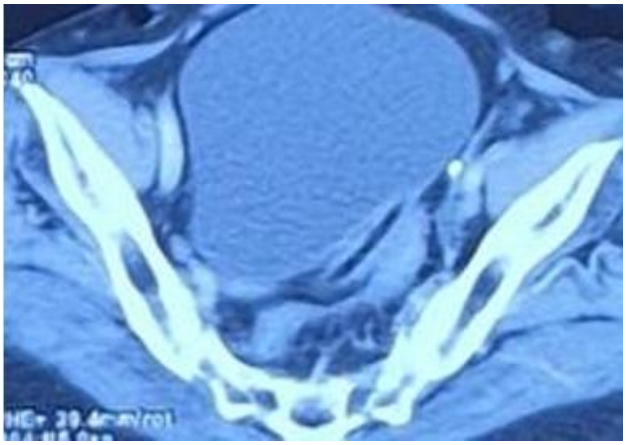

Figure 3: CECT Pelvis showing vesicovaginal fistula

A combined cystoscopy and vaginoscopy was performed from urology. The ring pessary was found to have formed a dense, solid mold with the eroded vaginal wall. She was admitted at our side and pessary was removed under a precautionary spinal anaesthesia by cutting the pessary with blade and scissors and via railroading technique. A vesicovaginal fistula was confirmed. The patient was managed with continuous bladder drainage via a Foley catheter, and she was scheduled for a definitive fistula repair (VVF repair) at a later date.

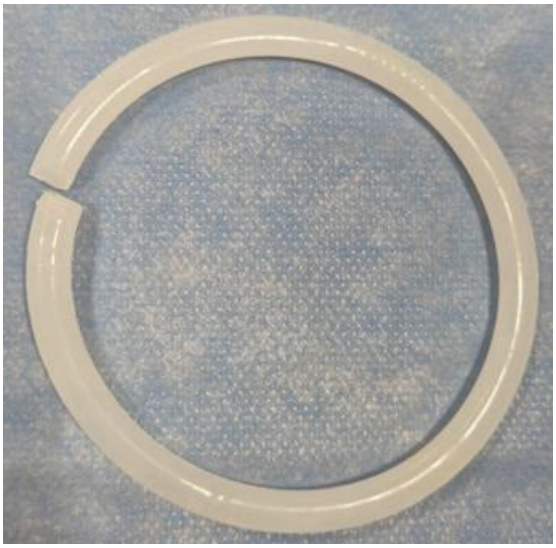

Figure 4: Removed Ring pessary with its cut end

3. Discussion

This case highlights a severe, yet preventable, complication of pessary use. While pessaries are an excellent tool for managing pelvic organ prolapse, their safety is contingent upon regular follow-up for removal, cleaning, and re-insertion, typically every 3 to 6 months.[4] When a pessary is neglected for years, as in this patient, the risk of incarceration rises significantly.[5]

The pathophysiology involves chronic pressure from the foreign body against the vaginal epithelium.[6] This leads to ischemia, pressure necrosis, and ulceration. Over time, the epithelium may grow over the pessary, incarcerating it within the vaginal wall. The continuous pressure and inflammation can then erode through the full thickness of the vaginal wall and into adjacent organs like the bladder or rectum.[7] Our patient's fistula and subsequent obstructive uropathy are direct consequences of this long-term pressure effect.

The diagnosis was challenging initially due to the non-specific urinary complaints and the patient's lack of awareness about the ongoing presence of the pessary. The CECT urogram was instrumental in not only identifying the impacted pessary but also in delineating the full extent of the urological damage, which is crucial for surgical planning.[8] This emphasizes the role of advanced imaging when an incarcerated pessary is suspected. The successful removal under anesthesia highlights the need for a controlled environment to avoid further tissue damage.

4. Conclusion

A forgotten pessary is a serious clinical entity that can lead to debilitating complications like vesicovaginal fistula and obstructive uropathy.[9] This case underscores the absolute necessity of robust patient counseling at the time of pessary insertion, emphasizing the need for lifelong, regular follow-up.

Clinical Significance

Clinicians should consider a forgotten or incarcerated pessary in the differential diagnosis of any elderly woman presenting

with chronic vaginal discharge, abnormal bleeding, or new urinary or bowel symptoms, even if there is no clear history.[10] This report reinforces the importance of a thorough pelvic examination and the utility of cross-sectional imaging to diagnose and plan the management of complex urogenital fistulas arising from such rare causes.

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