

# Challenging Case Report of a Postmenopausal Woman with Pyometra due to Impacted Foreign Body in Cervix

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## Abstract

*Forgotten foreign bodies in female genital tract can be a menace due to persistent offensive discharge. Such cases are challenging to manage as most women present late, sometimes even in menopause or in early childhood. This case report highlights a postmenopausal woman with purulent vaginal discharge, mistakenly thought to be pyometra, which ultimately turned out to be an impacted foreign body in cervix. An initial examination under anesthesia failed to reveal this impacted foreign body thus making the diagnosis difficult. A Total Abdominal Hysterectomy revealed a tightly impacted foreign body in the cervical canal which was forgotten for ages. A bottle cork with foul-smelling discharge was removed from the cervical canal that was inserted many years back. As the woman was demented, history failed to reveal its presence, making the diagnosis challenging. This presentation justifies the need for adequate examination with proper imaging to exclude the presence of such forgotten foreign body before planning any surgical intervention in cases with chronic vaginal discharge.*

## Keywords

*Pyometra, Foreign Body, Postmenopausal, Chronic Vaginal Discharge.*

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## Introduction

Commonly retrieved foreign bodies from female genital tract include old forgotten tampons, pessaries, pins, buttons, seeds, and toy parts. In younger women, vaginal foreign bodies may have been placed intentionally for sexual gratification, psychiatric disorder, or sexual abuse. It is observed in extremes of ages, either in old women with altered memory or in children with curious nature. Vaginal foreign bodies can be asymptomatic or symptomatic but mostly diagnosed with a history of chronic vaginal discharge. Literature witnessed many times forgotten contraception devices diaphragm, vaginal rings, and condoms which were removed many years later.<sup>1,2</sup> Children are unable to remove inserted vaginal foreign bodies like toilet paper, clothing, carpet material, and tiny objects. The retained objects irritate the vaginal mucosa causing profuse discharge which gradually gets infected.<sup>3</sup> The forgotten foreign body may cause vaginal erosion, ulceration, fibrosis, scarring, or infection and should be removed as soon as possible. Health education of adults not to forget vaginal objects and children to avoid exploring their body parts with objects is necessary. Proper history taking, clinical examination, and thorough assessment in patients with impacted foreign body inside the female genital tract are mandatory.

## Case Presentation

We encountered a 63 years old, postmenopausal woman with a persistent vaginal discharge of six months duration. Mother of three children, hypertensive, diabetic, demented, bedridden with history of the road traffic accident and stroke. On examination, a tender mass was palpable in the suprapubic area. Vulva and vagina were atrophic on speculum examination. Cervix was flushed with the vaginal vault and no abnormal growth was seen. The purulent and foul-smelling discharge was collected and sent for culture and sensitivity. Pelvic ultrasound revealed a bulky uterus measuring 12.3x 4.6x5.4 cm in size with an endometrial cavity filled with a large amount of mixed echo texture, thick collection with air gas shadow, and calcification within the cervical region. The cervical canal was distended with an anechoic area with multiple non-dependent echogenic foci with posterior acoustic shadowing measuring 3.2x2.1x3.5 cm (CC x AP x Transverse diameter) with normal adnexa. Contrast –Enhanced -Computerized Tomography (CECT) of abdomen and pelvis revealed a 3.4x2.6x2.6 cm dense foreign body within the cervical canal causing distension of the cervix. Air – fluid levels within the foreign body and the cervical canal, measured 2.3x2.2cm. The endometrial cavity was distended with fluid measuring 3.9x1.4 x1.5 cm with an air pocket in the non-dependent portion. Features suggested abscess formation in the uterine cavity (pyometra), cervical canal, and pelvis.

Routine laboratory investigations revealed Hb 11.45 g/dl, White cell count (WCC) 22.16, Platelets 453.40, Urea, Electrolytes, Renal, Liver function tests, and vaginal swab cultures normal.

Examination under anesthesia (EUA) revealed the vaginal wall to be nodular with a stenosed cervix. The uterine sound could not be passed through the cervical Os and many attempts to dilate the cervix failed. The procedure of EUA was abandoned for further imaging for definitive diagnosis and management. CECT abdomen and pelvis, which was not done earlier, revealed uterine pyometra. The patient was planned for Total Abdominal Hysterectomy with bilateral salpingo-oophorectomy. During this procedure, a plastic bottle cap sized 3x3 cm covered with foul-smelling pus was removed from the cervix (Figure 1-2). A suspected, enlarged mesenteric lymph node was excised for pathological examination. The histopathology of the uterus reported chronic endometritis, acute on chronic cervicitis, and focal squamous metaplasia. Mesenteric lymph node reported as fibrofatty tissue with extensive necrosis and inflammatory exudates. The postoperative recovery period and follow up was uneventful.

## Discussion

Any female who presents with recurrent foul-smelling discharge should be thoroughly screened for a foreign body in the vagina as these objects can be symptom-free or associated with persistent vaginal complaints. The precise history of patients may help in diagnosis and at times be challenging when the patient has forgotten about such lost foreign body as in our case. Various diagnostic modalities that can be helpful for evaluation are plain X-Ray pelvis, Ultrasonography, and Magnetic Resonance Imaging (MRI). Non-radio-opaque foreign bodies can be evaluated using MRI.<sup>4</sup>

The best option is to identify the hidden object and try to remove it as early as possible. Some of these foreign bodies can be removed easily without anesthesia, but sharp trapped objects may require anesthesia for removal. Injury to adjacent organs due to deep impaction must be ruled out and managed. A forgotten vaginal foreign body can lead to complications such as infection, pelvic peritonitis, abscess, migration into the bladder, vesicovaginal and rectovaginal fistulae with scarring and extensive fibrosis.<sup>5</sup>

In a postmenopausal woman, diagnosing a case of prolonged retained foreign body becomes challenging because it is necessary to differentiate it from pyometra, endometrial or cervical carcinoma with the clinical scenario of profuse foul-smelling vaginal discharge.<sup>6</sup>

Primary vaginal stones can be formed by urogenital defects and persistent urinary infection. Vaginoscopy may be needed to inspect the vagina in these prepubertal girls for diagnosis. A difficult case of primary stones in the vagina of an 11-year-old girl formed as a result of recurrent urinary stasis with the formation of calcium oxalate crystals was published by Al Basri and successfully treated with pneumatic lithoclast.<sup>7</sup>

Very often in postmenopausal women, neglected ring pessaries were removed after many years of insertion. Pushplata et al reported bizarre foreign bodies in the genital tract as one case report revealed the removal of the front part of a flashlight in a nullipara as a result of sexual assault and the other case reported a dead cricket surprisingly found inside the uterus of a seventy-year-old grand multipara woman, after performing a vaginal hysterectomy.<sup>8</sup> A complication of the vesicovaginal fistula was reported by Hanai et al in a young 18 years old female who had intentionally inserted a hairspray can for sexual gratification and later forgot to remove its cover.<sup>9</sup> Many times clinicians may not be able to detect the deeply impacted foreign body on initial examination as happened precisely in our case as we failed to detect the foreign body after EUA due to its high placement.<sup>10</sup>

Children have suffered sexual abuse by insertion of foreign bodies and may report with complaints of vaginal discharge. Pre-pubertal girls with a vaginal foreign body should be evaluated for sexually transmitted infections.<sup>11</sup>

Balci et al<sup>12</sup> reported a variety of challenging cases with retained vaginal foreign body for different reasons. Fernando et al reported two cases of neglected vaginal pessaries that were left in situ for a long duration and were subsequently managed.<sup>13</sup> Malatyalioglu et al reported a case of a 75 years old woman with the insertion of rubber ball 25 years back probably for pelvic relaxation.<sup>14</sup> The presentation of symptoms is almost always late as women tend to hide their history out of shame or forgetfulness subsequently landing with multiple serious complications.

## Conclusion

Morbidity and mortality associated with forgotten, impacted foreign bodies inside the female genital tract can be prevented by timely diagnosis, history taking, examination, thorough evaluation and effective management plan. In any woman presenting with a history of chronic vaginal discharge particularly those who are unresponsive to medical treatment, the possibility of a foreign body in the genital tract should always be excluded. Domestic violence leading to such an event needs appropriate and sensitive counseling to prevent psychological stress and depression.

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**Figure 1:** Bottle cork after removal from the cervical canal



**Figure 2:** Inner side of bottle cork impacted in the cervical canal