Diagnostic dilemma of a forgotten vaginal foreign body in a postmenopausal woman

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Abstract
Foreign body can be placed in genital tract either accidentally or intentionally and if forgotten lead to chronic offensive vaginal discharge. Observed in extremes of ages, either in old women with altered memory or in children with curious nature. Common foreign bodies retrieved from vagina include old forgotten tampons and pessaries, pins, buttons, seeds, toy parts. In younger women vaginal foreign bodies may have been placed intentionally for sexual gratification, psychiatric disorder or sexual abuse.

This is a report of 63 years postmenopausal with chronic foul smelling, purulent vaginal discharge of six months. On examination abdomen was soft with a tender mass in the suprapubic area. Per speculum examination revealed vulva and vagina being atrophic. Cervix noted to be flushed with vaginal vault with no abnormal growth. Purulent, foul smelling discharge was noted, which was collected and sent for culture and sensitivity. The case is presented to highlight the need for adequate examination with proper imaging to exclude the presence foreign body prior to any surgical intervention in any woman with history of chronic vaginal discharge.

Keywords: vaginal discharge, foreign bodies, postmenopausal, pyometra

1. Introduction
Vaginal foreign bodies can be asymptomatic or symptomatic, but mostly diagnosed with history of chronic vaginal discharge. Various objectives like contraception devices (diaphragm, vaginal rings, condoms), tampons, vaginal ring pessaries, and suppositories have been forgotten in the vagina and removed many years later [1, 2]. Children have been noted to have toilet paper, clothing or carpet material and tiny objects in their vagina which later were unable to remove. The retained articles irritate the vaginal mucosa increasing the discharge which gets infected gradually [3]. Forgotten foreign body may cause vaginal erosion, ulceration, fibrosis, scarring or infection and should be removed soon. Adults should be made aware not to forget objects in vagina. Children should be taught about their body parts and instruct them not to explore with objects.

2. Case presentation
Postmenopausal 63 years, para 3 with all previous vaginal deliveries, known hypertensive, diabetic, demented, bedridden with history of post road traffic accident and old CVA was brought to our outpatient department with complaints of vaginal discharge of six months. On examination abdomen was soft with a tender mass in the suprapubic area. Per speculum examination revealed vulva and vagina being atrophic. Cervix noted to be flushed with vaginal vault with no abnormal growth. Purulent, foul smelling discharge was noted, which was collected and sent for culture and sensitivity. Pelvic ultrasound revealed uterus bulky 12.3x4.6x5.4 cm in size with endometrial cavity filled with large amount of mixed echo texture, thick collection with air gas appearances and calcification within the cervical region. Cervical canal was distended with an anechoic area with multiple non-dependent echogenic foci with posterior acoustic shadowing measuring 3.2x2.1x3.5 (CC x AP x Transverse diameter). Findings suggestive of pelvic inflammatory disease and endometrial abscesses. She received antibiotics but still the foul smelling discharge continued on and off. Both ovaries found unremarkable.

She underwent examination under anesthesia with the provisional diagnosis of pyometra. Intraoperatively the vaginal wall was noted to be nodular with a stenosed cervix. Uterine sound could not be passed and many attempts to dilate the cervix failed and procedure was abandoned. Thereafter a CECT abdomen and pelvis was requested. CECT pelvis revealed a 3.4x2.6x2.6 cm dense foreign body within the cervical canal causing distention of the cervix. Air –fluid levels were noted 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 air pocket in the non-dependent portion. Features suggesting abscess formation in the uterine cavity (pyometra), cervical canal and pelvis.
Routine labs released Hb 11.45%, WCC 22.16, Platelets 453.40, U & E and LFT normal. Swab cultures MRSA, Acinetobacter and HVS negative for any growth. Subsequently total abdominal hysterectomy with bilateral Salpingo-ophorectomy was done. As soon as the vault was opened a plastic bottle cap 3x3 cm covered with foul smelling pus came out from the cervix. (Figure 1-3). A suspected lump in the sigmoid colon was noted which was a mesenteric lymph node, excised and send for histopathological examination. The histopathology of the uterus reported chronic endometritis, acute on chronic cervicitis and focal squamous metaplasia. Tissue send as mesenteric lymph node was noted to be fibro fatty tissue with extensive necrosis and inflammatory exudates. Postoperative period uneventful and follow up was normal.

Discussion:
Any female who presents with recurrent foul smelling discharge should be thoroughly screened for foreign body in the vagina. Vaginal objects can present quietly or with
symptoms of persistent vaginal discharge. History has to be precise and may be difficult in some cases who have forgotten the lost vaginal foreign body. Diagnosis at times is difficult as in our case exploration under anesthesia failed to notice the foreign body. Re-exploration with abdominal hysterectomy revealed an impacted foreign body in cervical canal. Various diagnostic modalities which can be helpful are plain X-Ray pelvis, Ultrasonography, MRI. MRI is useful in non-radio opaque foreign bodies [4].

The best option is to identify the hidden object and try to remove it as early as possible. Some can be removed easily without anesthesia, but sharp trapped objects need anesthesia for removal. Injury to adjacent organs due to deep impaction need to be ruled out and treated. Forgotten vaginal foreign body can lead to complications like infection, pelvic peritonitis and abscess, migration into the bladder, vesicovaginal and rectovaginal fistulae with scarring and extensive fibrosis [5].

In a postmenopausal woman the dilemma of diagnosing a case of prolonged retained foreign body is to differentiate it from pyometra, endometrial or cervical carcinoma with clinical scenario of profuse foul smelling vaginal discharge as in our case [6].

Al Basri [7] reported a difficult case of primary stones in vagina in an 11 year old girl formed as a result of recurrent urinary stasis with infection as a result of calcium oxalate crystallization which was successfully removed by disintegration with pneumatic lithoclast. 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.

Very often in postmenopausal women neglected ring pessaries were removed after many years of insertion. Pushpalata et al. [8] reported the removal of front part of a flash light in a nullipara as a result of sexual assault and surprisingly found a dead cricket inside the uterus of a postmenopausal woman after vaginal hysterectomy. An unusual presentation of vesicovaginal fistula happened in an 18 years female who had intentionally inserted a hairspray can for sexual gratification and forgot to remove its cover [9].

Many a 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 [10].

Children have suffered sexual abuse by insertion of foreign bodies and may report with complaints of vaginal discharge, careful vaginal examination using vaginoscopy may be needed at times [11].

Balci O et al. [12] reported variety of challenging cases with retained vaginal foreign body for different reasons. Few neglected vaginal pessaries in postmenopausal women [13], one reported case [14] of insertion of rubber balls 25 years back in vagina for pelvic relaxation in a 75 years old woman, some postmenopausal women were reported to have inserted foreign bodies in vagina for sexual stimulation and a case where inserted cap of an aerosol bottle was removed in a young female. The presentation of symptoms is always late as woman tend to hide their history out of shame or forgetfulness subsequently landing with multiple serious complications [15].

Our case is presented to highlight the need for proper history and examination prior to planning surgical intervention as in our case first trial in Operation theater was abandoned as correct diagnosis was missed and in the second attempt after total hysterectomy the correct cause of vaginal discharge was revealed. This implies that for any diagnostic or operative surgical procedure preoperative workup is essential.
4. Conclusion
Morbidity and mortality resulting with impacted and forgotten vaginal bodies can be prevented by timely appropriate clinical history and examination followed by correct management plan. Any woman presenting with a history of chronic vaginal discharge unresponsive to treatment possibility of foreign body in vagina should be always excluded. Domestic violence leading to this event needs appropriate and sensitive counseling to prevent psychological stress and depression.

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Declaration of Interest: None

5. References