



Intra Vaginal Foreign Bodies: An Uncommon Cause of Vaginitis

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Authors' contributions

This work was carried out in collaboration among all authors. Authors MT, DP and MK performed in the clinical management of the patient. Author MT designed the study, performed the literature survey and wrote the first draft of the manuscript. Authors DP and MK edited the manuscript. All authors read and approved the final manuscript

Article Information

Editor(s):

(1) Dr. Abdelmonem Awad M. Hegazy, Zagazig University, Egypt.

Reviewers:

(1) Wahied Khawar Balwan, University of Jammu, India.

(2) Jeet Gandhi, Kadi Sarva Vishwavidyalaya, India.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/60578>

Case Report

Received 26 June 2020

Accepted 01 September 2020

Published 09 September 2020

ABSTRACT

Though vaginal discharge is a common presentation to the health care facilities, intra vaginal foreign bodies are least considered as a differential diagnosis in the initial stage of the assessment. Diagnosis remains as a mystery unless the patient provides a reliable history. If not, thorough examination and appropriate investigations are the only pathways to come to the final diagnosis. We report on two different patients, a 62 year old postmenopausal woman and a 42 year old pregnant woman, both who underwent foreign body removal from their vaginal canal. They presented with vaginal discharge, but both of them either did not disclose or intentionally withheld the information of how these foreign bodies ended up in the vaginal canal. A case of intra-vaginal foreign body in a postmenopausal woman is reported here to highlight the possible diagnostic dilemma it can cause, especially with genital tract malignancy. The foreign body in a pregnant woman could raise several possibilities such as myths and self-practice of harmful methods of contraception or prevalence of sexual violence against pregnant women. The non-recommended contraceptive methods should be addressed in future contraceptive health education to public. A mother in her latter part of pregnancy may present with symptoms mimicking early labour due to foreign body. Basic vaginal examination, removal of foreign body and antibiotic treatment solved the symptoms completely without any further complications.

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Keywords: Foreign body; vagina; vaginal discharge; vaginitis.

1. INTRODUCTION

Almost all the foreign bodies found inside the vaginal canal would not have been inserted without the knowledge of that woman. They can be inserted for iatrogenic purpose, sexual gratification or by a third person in an event of sexual assault. Small children may insert small objects accidentally and may not be able to reveal the history at the presentation.

Vaginal mucosa is stimulated by foreign bodies in situ and it causes increased discharges per vagina which would be the primary symptom. With time, the discharge would become infected, smelly and blood stained. So the vaginal foreign bodies are usually present with the symptoms of purulent vaginal discharge or bleeding per vagina and may also present with the supra pubic pain, dysuria, urinary frequency and burning sensation [1].

There are many causes for vaginal discharges. Among them, vaginal foreign bodies are uncommon but not a very rare presentation [2]. Two case reports are described in this article - discussing their presentation, diagnostic methodology and management. One is a postmenopausal woman and the second one is a pregnant woman who was bearing twin fetuses. Both patients presented with the primary complain of vaginal discharge.

2. CASE PRESENTATION

2.1 Case 1

Our first patient is an otherwise healthy 62 years old mother of 7 children, who reached menopause 20 years back. She got admitted to the Teaching hospital, Batticaloa complaining of foul-smelling whitish mucous vaginal discharge and lower abdominal pain for 15 days with associated urinary frequency. She did not have fever. She was not sexually active and did not have any episode of bleeding per vagina.

On examination, she was well looking, afebrile. Her vital parameters were within normal range. Abdomen was not distended, soft and non-tender. On speculum examination cervix appeared to be healthy, cervical os was closed

and a whitish foul smelling purulent vaginal discharge noted. Apart from these findings, a blue color ring like structure was noted at the posterior vaginal fornix. It was not embedded in the vaginal mucosa, hence easily removed while doing the digital examination. It was a plastic ring like structure – appeared to be a threaded lid or neck of a plastic bottle measuring around 5cm in diameter and 2cm in height (Fig. 1).

Patient did not reveal any history of inserting a foreign body accidentally, intentionally or any possible history of sexual abuse. She is a widow and denied involving in any sexual activities in the recent past. Further, she avoided more focused questions possibly due to embarrassment, by claiming that she has difficulty in recalling past events. For which we obliged and omitted detailed history thereafter.

She was treated with intravenous antibiotics for one day, for which the symptoms improved. She was discharged with oral antibiotics. Pap smear and endo-sampling histopathology reports revealed no malignancy. A review in three weeks later revealed complete disappearance of symptoms.

2.2 Case 2

Our next patient is a 42 years old woman in her third pregnancy with three living children. First pregnancy was a singleton, while her second pregnancy was a twin pregnancy – both pregnancies ended up in caesarean deliveries. Her current pregnancy was a dichorionic and diamniotic twin pregnancy (DCDA) at the gestational age of 33 weeks and 4 days. Her current pregnancy was unplanned and appeared to be an unwanted pregnancy, which was sensed during the conversation with the mother. On her admission she was complaining of mild aching type continuous lower abdominal pain and watery vaginal discharge for one day duration. Her pains were not suggestive of labour pains. She did not have any episodes of bleeding per vagina nor did she have any urinary symptoms. Her general as well as the cardiovascular and respiratory system examinations were clinically normal. On speculum examination, a whitish mucus vaginal discharge was noted. The discharge was neither purulent nor foul smelling. Cervical os was found to be at the size of a tip of the finger and there was no true dribbling. On bimanual palpation, a foreign body was found in the right lateral vaginal fornix and it was taken

out easily. Foreign body was a plastic cap of a bottle which was 2cm in diameter and 1 cm in height (Fig. 2). Patient did not reveal any history of insertion of any foreign body accidentally or intentionally.

Further investigations, such as C-reactive protein (CRP) were 10 mg/L and full blood count was within normal limits. Urine full report was within normal range. She was managed with IV cefuroxime 750 mg TDS for 1 day and was discharged with oral antibiotics for 6 days. Pregnancy was continued without complications and delivered healthy live fetuses by elective LSCS due to the history of past 2 LSCS. Intraoperative and post-operative events were uneventful.

3. DISCUSSION

In the first author's 20 years of obstetrics and gynaecology practice, this is the first-time foreign bodies were detected in vagina of adult women apart from iatrogenic objects such as contraceptive devices and pessaries. Interestingly both cases presented within a couple of weeks apart.

Both cases presented with vaginal discharges. There are list of causes for vaginal discharge. Common causes for the vaginal discharge vary with different age groups of women. Foreign body during the pregnancy should ring an alarm that, these foreign bodies could have been introduced into the vagina, assuming that these objects might prevent the conception or for the purpose of terminating an undesired pregnancy. Mother was reluctant to reveal any history of intentionally inserting any object into vaginal canal, which made further questioning at a halt.

Foreign bodies in the vagina can cause various complications such as trauma, perforation and may invade the bladder, causing peritonitis, pelvic and vaginal adhesions, corrosion and formation of fistulas.

Foreign bodies may cause vaginitis leading to vaginal ulceration, ultimately involving the adjacent structures such as bladder and rectum, which causes urinary and fecal incontinence [3-5]. Foreign body in-situ may cause chronic inflammation and fibrosis, which leads to vaginal stenosis and complete obstruction eventually [6]. Ascending infections can give rise to endometritis, salpingitis and peritonitis. Rarely, unchanged pessaries may cause severe ulceration of the vaginal wall progressing to vaginal carcinoma with time [7]. Fortunately, none of the above complications occurred in the reported two cases.



Fig. 1. Threaded neck of a plastic bottle

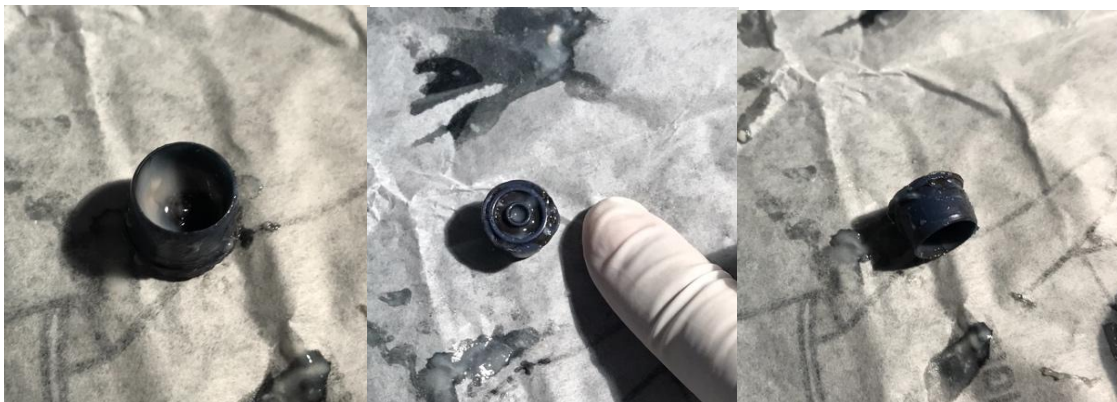


Fig. 2. Plastic cap of a bottle which was 2 cm in diameter and 1 cm in height

Diagnosis of the vaginal foreign bodies is based on history and thorough examination, especially the speculum examination and bimanual digital vaginal examination. Sometimes imaging studies will be useful for the identification of foreign bodies specially when there is an unexplained purulent or bloody vaginal discharge [8]. Plain X rays, ultra sound scans, HSG, MRI are diagnostic. X ray would be useful to detect radio opaque objects such as metals except aluminum, glass objects and most of the animal bones. X rays are not useful to detect most plastic, wooden objects and most of the fish bones [9].

MRI can be used to detect non- metallic objects which might not be detected by X-rays and other imaging methods [10,11]. MRI is the best available imaging technique to evaluate vaginal foreign bodies [12]. If the woman is pregnant X rays would not be suitable for diagnostic purposes. In those instances, new imaging methods also can be used such as 3D multi planar display, Real time 4D ultrasound incorporated with 3D surface rendering technologies [13]. None of the investigations were used to identify the foreign bodies in these reported cases. Fortunately foreign bodies were identified and removed by examination without further investigation or interventions in both reported cases.

Approximately 4% of pre pubertal girls with gynecological complains were due to vaginal foreign bodies [14]. The most common foreign body found in pre-pubertal girls are toilet tissue papers. Sometimes other objects also have been reported such as small toys, safety pins and other small objects [15,16].

Most of the time they are unable to provide a clear history while a few will come up with a history of placing an object in their vagina. No matter what the history is, a thorough detailed history taking and examination should be done because there is high chance of sexual abuse and it should be excluded all the time [5].

Ideal management of the vaginal foreign bodies is the removal from the vaginal canal. If it is uncomplicated, it can be removed easily without anesthesia as it has been done in both the cases presented above. Certain objects like shrapnel and hazardous objects may need anesthesia to remove them carefully. In some instances, instruments like obstetrics forceps and vacuum devices may be required for the removal. Rarely laparotomy is performed in complicated cases [17]. Vaginoscopy under general anesthesia with

continuous flow irrigation using 4mm hysteroscope will help the diagnosis as well as management of foreign bodies in children [10]. Following the removal of foreign bodies usually Vaginal mucosa heals well. But sometimes it may need surgical repair if there are complications such as fistula formation. If there is an evidence of infection, it should be treated accordingly following the removal of the foreign body, with the help of relevant septic screening.

4. CONCLUSION

Purulent vaginal discharge in a postmenopausal woman could raise the suspicion of genital tract malignancy. However, but rarely the vaginal foreign bodies could also give similar presentation. Treatment is simple and straightforward with permanent cure.

On the other hand, presence of vaginal foreign body in a pregnant woman as in the second case could either reflect individuals practicing harmful non-recommended contraceptive methods or domestic sexual violence against the woman even though it is not divulged by the woman.

The non-recommended contraceptive methods should be addressed in future contraceptive health education to public. Further pregnant mothers with objects in vaginal canal may mimic labour symptoms. Unless embedded, perforated or fistula formed, simple removal of the object and treating the infection will resolve the symptoms most of the time.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

ACKNOWLEDGEMENTS

We would like to thank the Director - Teaching Hospital Batticaloa for granting permission to access patient medical records.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:

The peer review history for this paper can be accessed here:
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