

Foreign Body in Vagina: An Uncommon Cause of Vaginitis in Children

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Abstract

Vaginal discharge in children may result from a variety of causes. A long-standing intra-vaginal foreign body can pose both diagnostic and therapeutic challenges in children. Treatment failure may occur because of alteration of the normal vaginal flora. A 6-year-old girl, who lived with her parents, presented with a foul-smelling, blood-stained vaginal discharge as well as dysuria for 2 years. There was no history of sexual abuse. Initial evaluation that excluded gynecologic examination revealed lower abdominal tenderness. Vaginal swab and urine cultures yielded *Staphylococcus aureus* sensitive to ceftriaxone only. She was commenced on this antibiotic for 2 weeks, but the discharge persisted, necessitating referral to the gynecologist. Examination under anesthesia by the gynecologist revealed shreds of toilet tissue paper extracted from the vagina and slight excoriations on the wall of the vagina. Vaginal foreign body can present with diverse symptoms. It should be considered in any young female patient presenting with recurrent or persistent vaginal discharge.

Keywords: Foreign body, Pediatric, Vaginal discharge

Introduction

Symptoms secondary to a vaginal foreign body are responsible for approximately 4% of pediatric gynecologic outpatient visits.^[1] While a variety of symptoms may result from a foreign body in the vagina, the most common symptoms are bleeding or foul-smelling vaginal discharge.^[2] Vaginal purulent discharge that may be relapsing or resistant to symptomatic and/or antibiotic therapy is seen as a gynecologic problem in children.^[3] For pre-menarchal girls, the predisposing factors mainly include a lack of an acidic pH and lack of the protective effects of estrogen on vaginal mucosa.^[1] Less-common symptoms may include pain or urinary discomfort. Sometimes, although rarely, foreign bodies could produce a systemic infection in circumstances such as severe immune compromise or disruption of the vaginal wall with secondary infection. Perforation through the vagina into the abdominal cavity, resulting in acute abdominal symptoms, is a possible sequel.^[4] At times this could lead to vesico-vaginal fistulae.^[4]

The most frequent symptoms in these and other reported cases are: Vaginal discharge, often bloody, purulent or foul smelling, pain in the lower abdomen and supra-pubic region, frequency, burning sensation and dysuria.^[2] Gynecological problems unique to the pediatric age group require a different clinical approach in management. It is becoming important in most settings to organize special gynecology clinics for pre-pubertal girls in order to develop special knowledge and skills needed in pediatric gynecology.

We report a case of vaginal foreign body presenting as vaginal bleeding and a foul-smelling discharge in a young girl. The persistence of symptoms, despite appropriate antibiotic therapy, makes this case unique.

Case Report

A 6-year-old girl who lived with her parents presented with recurrent foul-smelling, blood-stained vaginal discharge and dysuria for 2 years. There was no history of urinary frequency, abdominal pains or preceding sexual abuse. A history of foreign body insertion into the vagina by the child could not be established. Her mother had taken her to some private clinics where several antibiotics and vaginal creams were administered with no improvement. There was a harmonious parental relationship and no family discord.

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Initial examination revealed an apprehensive child with slight lower abdominal tenderness. Vaginal examination however was not done. Vaginal swab and urine cultures yielded *Staphylococcus aureus* (MRSA) sensitive to Ceftriaxone only. She was commenced on this antibiotic for 2 weeks, but the vaginal discharge continued, necessitating referral to a gynecologist. Examination under anesthesia by the gynecologist revealed very mild excoriations on the vaginal wall, intact hymen that appeared thin, smooth, delicate and nearly translucent, and shreds of toilet tissue paper extracted from the vagina by the use of a swab stick. The vaginal discharge stopped subsequently and the patient improved remarkably on syrup Cefuroxime given for 7 days. Consent was granted by the care giver for this report, but she declined consent for the use of her child's pictures for illustration due to personal reasons.

Discussion

An extraordinary variety of foreign bodies may be found in the vagina, including safety pins, hair grips, pencils, small jam jars and toilet tissues, especially in the mentally retarded or a young child.^[5] Children insert toys, sweets and hairpins into the vagina mainly out of curiosity. Small pieces of toilet paper that find their way into the vagina are most common.^[6]

Foreign bodies may be also inserted for various reasons, for instance as articles of toilet and hygiene, by accident, as therapeutic agents to induce abortion or as contraceptive devices.

Foreign bodies can also be found in other orifices (ear and nose) in children.^[6] For instance, the most common presentation of unilateral nasal foreign body in the pediatric age group is unilateral recurrent rhinitis, rhinorrhea and unilateral epistaxis.^[7] They are usually reported early by the patient or relatives of the patient. Nasal foreign bodies include button cells, stones, beads, nuts, seeds, small erasers and toy parts.

Ologe, *et al.*,^[8] in Ibadan, Nigeria, noted that children with auricular foreign bodies presented with otalgia in 17.3% of the cases and otorrhoea in 9.9% of the cases. Others presented with bleeding through the ear and hyperacusis. Stool, *et al.*,^[9] also noted otorrhoea and otalgia in another study.

Regarding vaginal foreign body, vaginitis could result in ulceration of the vaginal walls, which may involve neighboring structures causing urinary and fecal fistulae.^[10]

Ascending infection may lead to salpingitis and peritonitis. Rarely, neglected pessaries can cause severe ulceration of the posterior fornix and, later, vaginal carcinoma.^[7] The patient in this report had only minor abrasions of the vaginal wall.

The predominant symptom is usually an offensive blood-stained discharge, as was observed in this report. The foreign body

must be removed, which may be easy, although in young children a narrow illuminated endoscope may be needed. The vaginal wall heals by itself after removal, as was also observed in the current report. The presence of vaginal foreign body may be an indication of sexual abuse. Although this is not always the case, the possibility should be kept in mind while examining any child with vulvovaginal symptoms.^[7]

Children may be unable to provide history of an object placed in the vagina; it is thus appropriate at this time to ask questions related to sexual activity and sexual or physical abuse. The possibility of sexual abuse, especially in girls with a vaginal foreign body, should always be explored.^[7]

The possible route of entry of foreign body in the present report remains uncertain. However, at this age, the hymen changes from an annular (circumferential) shape to a thin, smooth, delicate and nearly translucent membrane.^[11] This probably might have allowed the little shreds of toilet tissue paper to get in, considering the fact that it was removed by a swab stick.

Nevertheless, Chia-Woei Wang and colleagues^[12] have noted that continuous flow vaginoscopy can be used to detect an intra-vaginal foreign body, which may then be removed successfully by hysteroscopy. They concluded that hysteroscopy is safe, convenient, effective and easy to perform, even in a child. In the index patient, examination under anesthesia and removal of the foreign body with only a cotton ball was done. Notably, current methods used to remove vaginal foreign body are hysteroscopy (as previously mentioned) and colposcopy (if the foreign body is beyond the vagina).^[12]

Although vaginal examination generally reveals the presence of a foreign body, some imaging techniques may also be helpful. Other methods to rule out a vaginal foreign body include pelvic ultrasonography, plain pelvic radiography, vaginography and magnetic resonance imaging (MRI). MRI is supposed to be the best technique for evaluating vaginal foreign bodies.^[13]

Gynecological problems, such as vaginitis secondary to foreign body in the vagina, encountered in the pediatric age group require different clinical skills in management utilized for the adult population.^[14] It is becoming imperative in most centers to organize a special gynecology clinic for pre-pubertal girls in order to develop special knowledge and skills needed in pediatric gynecology.

Because these problems are unique to the pediatric age group, the practicing obstetrician-gynecologists are often uncomfortable evaluating and managing these children, despite the fact that they should be part of the multidisciplinary team approach to the management.

Conclusion

Vaginal foreign body can present with diverse symptoms. It should be considered in a young female patient presenting with persistent or recurrent vaginal discharge.

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