

CASE REPORT

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A Rare Cause of Unexplained Vaginal Bleeding: Foreign Body

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ABSTRACT Vaginal foreign bodies pose a significant diagnostic challenge for physicians. This case report presents the removal of a foreign body from the vagina of a 9-year-old girl initially evaluated for precocious puberty. The patient presented with vaginal discharge and bleeding and was initially treated with antibiotics. However, as the bleeding persisted, an assessment for precocious puberty was initiated. Since her hormonal levels were within normal limits, the possibility of a foreign body was considered. Upon further questioning, the patient admitted to inserting 2 metal paper clips into her vagina. A vaginoscopy was performed, successfully removing both foreign bodies. This case highlights a rare instance of vaginal foreign bodies in a prepubertal child. In young children and prepubertal females presenting with vaginal discharge and bleeding, the possibility of a foreign body should be considered in the differential diagnosis.

Keywords: Prepubertal; vaginal bleeding; vaginoscopy; foreign body; child

Vaginal exudate is the most common gynecological complaint in women, and it can be particularly concerning in prepubertal girls.¹ Potential causes of vaginal discharge include infections leading to nonspecific vulvovaginitis, dermatological lesions, precocious puberty, tumors, trauma, vaginal foreign bodies, and sexual abuse.² Undiagnosed vaginal foreign bodies, particularly disc-shaped button batteries, can lead to severe complications. In prepubertal girls, the possibility of a foreign body should always be considered during history-taking and in cases unresponsive to treatment, necessitating further diagnostic evaluation.³

In the diagnosis process, microbiological and biochemical evaluation of the discharge should be performed initially. If a foreign body is suspected, diagnostic imaging should begin with pelvic X-rays, followed by ultrasonography or magnetic resonance

imaging. For definitive diagnosis and treatment, vaginoscopy under anesthesia may be required. Vaginoscopy not only helps identify foreign bodies but also detects signs of infection, trauma, or sexual abuse. Suspicious lesions can be biopsied during the procedure. Continuous saline irrigation during vaginoscopy cleanses the vaginal cavity and facilitates the removal of small particles that might contribute to the discharge.⁴⁻⁵

The types of foreign bodies vary by age groups. In pediatric patients, the most frequently encountered objects include small toys, tissue paper, and various household items, often introduced out of curiosity or by accidental insertion.⁶⁻⁷

This case report underscores the importance of considering vaginoscopy in the evaluation of prepubertal girls with persistent vaginal discharge and bleeding, even in the absence of a reported history of

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a foreign body, to ensure accurate diagnosis and appropriate management.

CASE REPORT

A 9-year-old girl presented with a 2-day history of vaginal discharge. Initially, hygiene measures and topical antifungal treatment with isoconazole nitrate were prescribed. Due to the persistence of symptoms, empirical antibiotic therapy with cefixime (8 mg/kg) was initiated. Despite treatment, the symptoms persisted, and vaginal bleeding also developed as well. A sample of the vaginal discharge was obtained, and the antibiotic regimen was switched to a combination of trimethoprim-sulfamethoxazole and metronidazole.

Two weeks later, although the vaginal discharge had decreased, the bleeding worsened, prompting a referral to the pediatric endocrinology clinic for evaluation of precocious puberty. The pediatric endocrinology department reviewed her hormone levels. Estradiol was measured at 3 pg/mL, progesterone at 0.2 ng/mL, follicle-stimulating hormone at 0.3 mIU/mL, luteinizing hormone at 0.05 mIU/mL. All of these values were within the normal reference ranges for a 9-year-old girl, showing no evidence of precocious puberty or hormonal imbalances. Upon further questioning, the patient admitted that she had inserted 2 metal paper clips into her vagina 2 days prior. She was subsequently referred to the pediatric surgery department.

Pelvic X-ray imaging confirmed the presence of foreign bodies, and elective vaginotomy was planned (Figure 1).

SURGICAL PROCEDURE

The patient underwent general anesthesia and was placed in the supine position. Vaginotomy revealed a dark-colored foreign body surrounded by purulent discharge on the vaginal floor. The foreign body was successfully removed using forceps without any complications. Pelvic X-ray imaging initially suggested a single foreign body due to overlapping structures, but during the procedure, 2 separate foreign bodies were identified. Both were confirmed to be metal paper clips (Figure 2, Figure 3). The patient had an uneventful recovery and was discharged in good health.

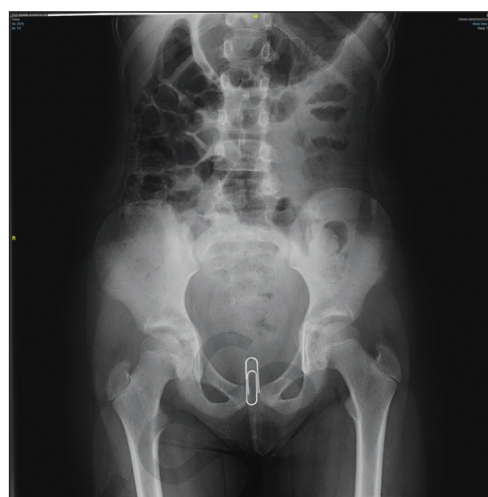


FIGURE 1: Pelvis X-ray showing the foreign body location

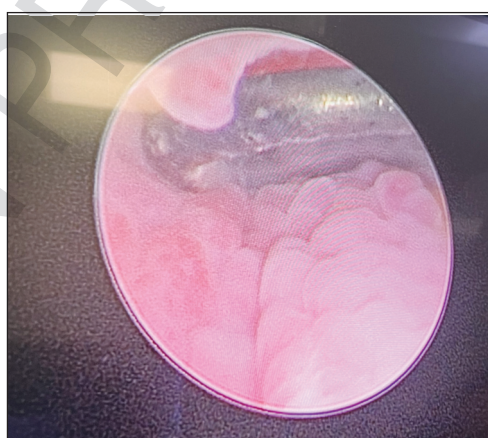


FIGURE 2: Vaginoscopy image demonstrating the foreign body (metal staple) within the vagina

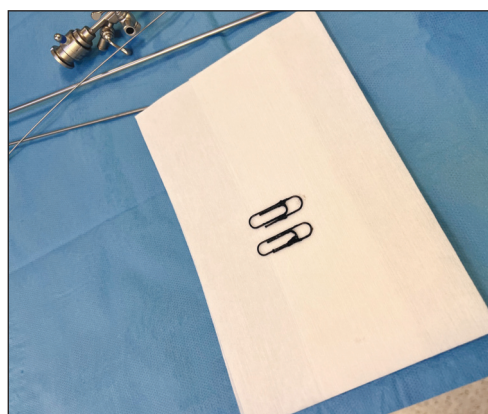


FIGURE 3: Two clips removed from the vagina after intervention

Informed consent for publication was obtained from the patient's family.

DISCUSSION

In the earliest stages of development, it is highly unlikely for infants to insert a foreign object into the vagina while wearing diapers, as they do not yet have the coordination to perform such an action. As children develop language skills, they also gain the ability to identify body parts, such as, ears, eyes and nose. Family members of the patient may use unconventional words or slang expressions to describe the genital area, while some families may opt for the more specific term “vagina”.⁶ A key developmental milestone in childhood is the transition from diapers to toilet training. A toilet-trained child should be able to wipe successfully from front to back, a task that can sometimes be challenging and may require assistance. Therefore, paper of toilet is the commonly found foreign object in the vaginas of girls in Turkish culture.⁷

The pediatric literature contains numerous examples of foreign objects inserted by children into various parts of the body, particularly the gastrointestinal system.^{8,9} This is a common concern, and caution is necessary. Girls develop sexual awareness from the phallic period onwards and can insert objects into their genital areas to hide them during play. Girls between the ages of 3-9 are more likely to insert foreign objects into the vagina.^{4,7,10} In this study, our patient was 9 years old, placing her in a relatively older age group for vaginal foreign bodies. However, most studies report that younger age groups are more commonly involved in such cases.^{4,7,10} During the family interview, it was confirmed that the child’s mental health was normal.

If a battery is suspected as the foreign object, failure to detect and remove it in time can lead to serious consequences. Other cases of damage caused by batteries inserted into the vagina have been reported.^{11,12} The female patient may present with cramp-like abdominal pain. If the diagnosis is delayed and the battery remains in the vagina for an extended period, dark brown foamy discharge may accompany the abdominal pain. In our patient, the foreign object was a metal staple, and no damage was observed during vaginoscopy.

Despite vaginal discharge and bleeding, the patient had concealed this information from her family for an extended period. Similarly, in another case in-

volving a suicide attempt where the patient concealed the issue for a long time, the child developed acute interstitial nephritis. Unfortunately, the diagnostic process was prolonged until a kidney biopsy was performed.¹³

If a girl, out of curiosity, play, or animistic thinking, inserts a foreign body into her vagina, the most common symptom observed is vaginal discharge, which in some cases may present with a hemorrhagic character. It is well known that the most frequent cause of vaginal discharge in this age group is vulvovaginitis.¹⁴

Preventive measures to avoid vaginal discharge include wearing loose, comfortable clothing, choosing 100% cotton underwear instead of nylon or lycra fabrics, using body wash rather than bubble baths for cleansing, and wiping from front to back after defecation. These simple steps can help prevent common vaginal discharge. However, if the discharge persists, especially if it contains blood or has an unpleasant odor, further evaluation by a healthcare professional is required. Vaginal cultures can effectively identify pathogenic bacteria or *Candida* species. Other important considerations include precocious puberty, vaginal foreign bodies, genital anomalies, and malignancies such as rhabdomyosarcoma. In particular, it should be noted that vaginal discharge may be the first symptom of botryoid rhabdomyosarcoma.^{4,13,14}

One of our patients presenting with vaginal bleeding was later diagnosed with Munchausen Syndrome by proxy.¹⁵ For certain patients or their families, a detailed psychological assessment may be necessary. Unfortunately, diagnosing and managing child and sexual abuse cases can be challenging. The presence of bright red blood in underwear, rather than vaginal discharge, should raise suspicion of sexual abuse. Additionally, vaginal bleeding may be an early sign of a hematologic disorder, including malignancies.¹⁶

To prevent the recurrence of such incidents in children, additional approaches such as psychological assessment and family counseling are recommended. Collaboration between pediatric psychiatry and pediatrics can play a crucial role in educating both the patient and their family, thereby reducing the likelihood of recurrent cases.¹⁷

In prepubertal girls, vaginal discharge and bleeding should prompt consideration of vaginal foreign bodies in the differential diagnosis. Comprehensive clinical evaluation, including imaging techniques and procedures such as vaginoscopy, is essential for accurate diagnosis and treatment. Early detection and removal of foreign bodies help prevent complications and ensure complete recovery without any residual symptoms.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: Sinan Kılıç, Sebahat Ağladioğlu Yılmaz; **Design:** Sinan Kılıç; **Control/Supervision:** Sinan Kılıç, Sebahat Ağladioğlu Yılmaz; **Data Collection and/or Processing:** Sinan Kılıç; **Analysis and/or Interpretation:** Sinan Kılıç; **Literature Review:** Sinan Kılıç; **Writing the Article:** Sinan Kılıç; **Critical Review:** Sinan Kılıç; **References and Fundings:** Sinan Kılıç; **Materials:** Sinan Kılıç, Sebahat Ağladioğlu Yılmaz.

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