

Instrumental Extraction of a Foreign Body in a Child with Persistant Vaginal Discharge: A Case Report

Pelin ÖCAL¹, İrem CANSEVER¹, Funda SALİHOĞLU¹, Tan NAZIM², İsmail ÇEPNİ¹

Istanbul-Turkey

Foul-smelling, bloody vaginal discharge and pelvic pain may indicate the presence of an unknown intravaginal foreign body especially if chronic or recurrent. This report discusses a girl of 5 year old who had persistant vaginal discharge of long duration and successful instrumental extraction of a foreign body discovered by abdominal X-ray.

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Vaginal discharge in children is a common gynecologic complaint and may be resistant to symptomatic and/or antibiotic treatment. In recurrent or unresponsive patients, an evaluation to rule out a foreign body is traditionally recommended. Vaginal foreign bodies may be inserted into the vagina as an aid to masturbation, sexual intercourse or sexual assault in adults. In the childhood, a foreign object can be introduced in the vagina during playing or by curiosity. Many different objects have been used: tampons, bone, vegetables, pencils, drinking glasses.^{1,2}

Recurrent or persistent vaginal discharge is particularly distressing to the patient and her family because it raises concern of an uncertain bacterial source, possible undisclosed sexual abuse, the need for multiple genital examinations and the possibility of a foreign body.

This report discusses a 5-year-old girl who had persistant vaginal discharge of long duration and successful instrumental extraction of a foreign body discovered by abdominal X-ray.

Case Report

We present the case of a 5-year-old girl who was brought to Cerrahpaşa Faculty of Medicine Gynecology & Obstetrics clinic by her family on September 2002. She suffered from persistent purulent, malodorous vaginal discharge for over 9 months. She was sent from pediatrics clinic for vaginal culture.

Gynecologic examination revealed an annuler and intact hymen. Rectal examination demonstrated a firm, solid mass in the vagina. Vaginal culture stick caused bleeding and gave sensation of a firm object in the vagina. Those findings

¹Cerrahpaşa Medical School, Department of Obstetrics and Gynecology, University of Istanbul, ²Cerrahpaşa Medical School, Department of General Pediatrics, University of Istanbul, Istanbul, Turkey

Address of Correspondence Pelin Öcal

Vefa Bayırı Sokak, No: 6/28

Istanbul -Turkey

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suggested the possibility of a foreign body. No evident pathology was detected with transabdominal ultrasonography. An abdominal flat plat radiologic examination revealed a metallic hair clip (Figure I).

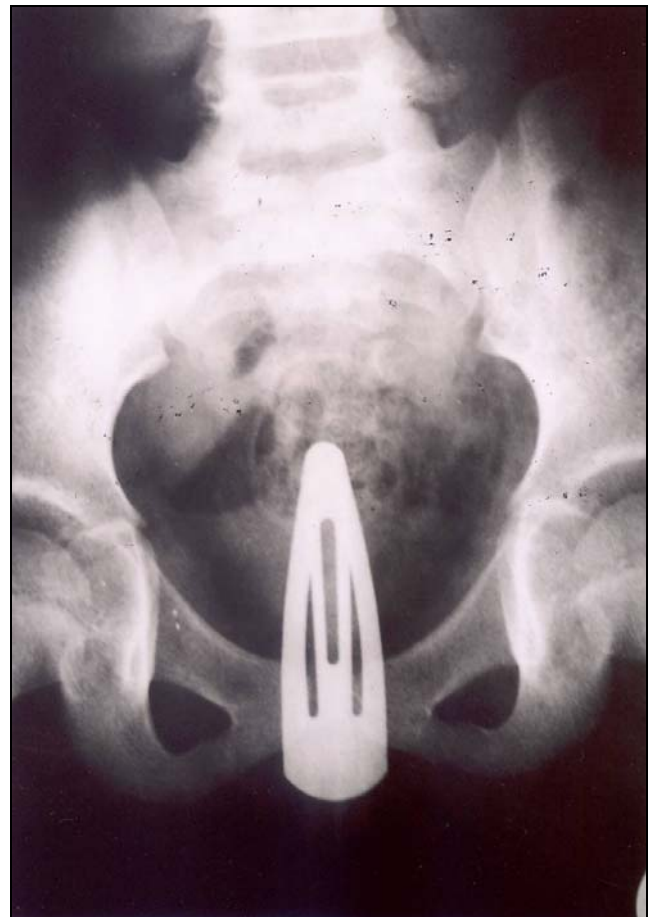


Figure I. Abdominal flat plat radiologic examination: a metallic hair clip

Under general anesthesia, with patient in the dorsolithotomy position, vaginal irrigation with povidone-iodine solution was done. The foreign object detected in the posterior wall was succesfully grasped with a Kelly clamp and removed (Figure II). The patient was monitorized for a few hours and discharged home with oral antibiotic treatment.

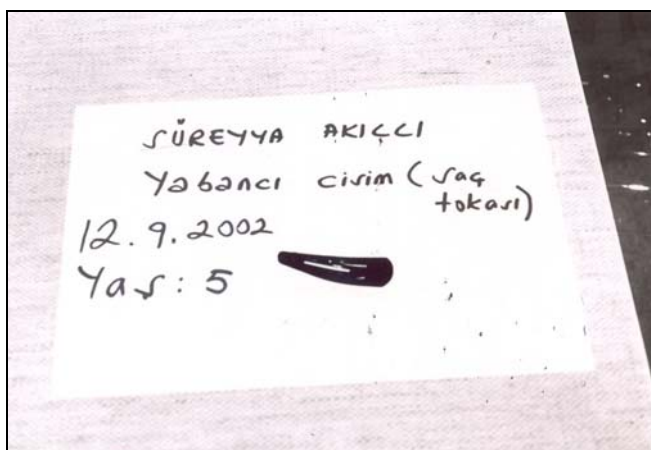


Figure II. The foreign object: a metallic hair clip

Discussion

Vaginal discharge is a common gynecologic complaint in childhood. The hypoestrogenic hormonal milieu in preadolescent children is a major factor contributing to the susceptibility of the vaginal mucosa to infection. The mucosa is thin, lacks cornification and has an alkaline pH, therefore is more susceptible to invasion of pathogens. The microbiology of normal premenarchal vaginal flora and symptomatic vaginal discharge has been studied and reveals mixed aerobes and anaerobes in both groups.³⁻⁵

The prevalence of vaginal foreign body in girls under 13 years of age with gynecologic disorders was found to be 4–10%.^{1,6,7} It also accounts for 10% of cases presenting with a complaint of bloody discharge.⁶ Other authors reported a prevalence of 18% in preteenage girls with vaginal bleeding with or without discharge and 50% for those with bleeding and no discharge will certainly have vaginal foreign bodies.¹ The most common foreign body reported,^{1,8} accounting for about 80% of foreign bodies⁹ were pieces of toilet paper.

Correct diagnosis of a chronic vaginal foreign body requires a high index of suspicion.¹⁰

Especially in children and patients with mental retardation persistent malodorous purulent or bloody vaginal discharge should alert the gynecologist to the possibility of intravaginal foreign body.

In children with persistent vaginal discharge methods to rule out a foreign body include a careful genital examination in the clinic, and procedures such as a vaginal saline lavage in older children (average age 7.7 yr.) or an examination under anesthesia with vaginoscopy.⁸

Additionally inflammatory reaction of the vaginal mucosa to the foreign body over the years may induced cicatrization and produced a thick capsule that completely concealed the foreign object and may cause a visual absense of foreign body at speculum examination.

Rectovaginal and vesicovaginal fistula have been reported as complications of chronic vaginal foreign bodies.¹¹ In our case the damage was limited to the vagina.

Vaginoscopy in the operation room is the traditional method of assessment of foreign bodies in children unresponsive to improved perineal hygiene and medical therapy, such as antibiotics. The exam under anesthesia allows for a more thorough examination and for obtaining vaginal cultures and biopsies, if indicated. Another potential advantage of vaginoscopy is the ability to execute an extensive vaginal irrigation. Vaginal irrigation in the clinic setting has been reported as a method to identify foreign bodies.⁸ But it was not attempted in younger patients due to the risks of hymenal and vaginal injury and emotional trauma.

In addition to vaginal irrigation and vaginoscopy under general anesthesia, other noninvasive methods have been used to identify foreign bodies in young patients, including pelvic sonography,^{12,13} plain abdominal x-ray¹⁴ and MRI.¹⁵

As in our case transabdominal ultrasonography may not demonstrate a pathology Transvaginal ultrasound or transrectal ultrasound may be used in women but couldn't be used in little girls. Ultrasound may be indicated for bloody vaginal discharge that is not due to precocious puberty, to rule out ovarian or uterine masses. Abdominal flat-plate radiography and MRI will localise the foreign body. In these cases hysteroscopy is also a safe, convenient, effective and easy to performe both in diagnosis and removal of the foreign object (XVI 6).

The use of radiological diagnostic modalities may be limited by the composition of the foreign body. If the foreign bodies were radiolucent, neither a plain x-ray nor pelvic ultrasound will detect them. The use of MRI has increased the localization of nonmetallic objects missed by ultrasonographic and radiologic studies. MRI, however, is not always available or necessarily conclusive.

In our case an abdominal flat-plate radiologic examination permitted to diagnose the metallic hair clip. It's a simple, cost-effective and definitive method for diagnosis of metallic objects. Magnetic resonance imaging of the pelvis should be used for confirming non metallic objects.^{10,15}

Many different techniques have been used in foreign body extraction from the vagina.

Mc Allister and Guston diagnosed a vaginal body of 9 years of duration in a 11 year old patient with IVP and removed the object performing incision of scarred area after vaginal dilatation.¹⁴ A 3.5 year old girl who had a persistent, foul smelling vaginal discharge was examined with vaginoscopy and treated succesfully by hysteroscopic extraction.¹⁶

Also forceps extraction of an orange was reported in a 25 year old woman with a viable intauterin pregnancy at 285 weeks gestation.¹¹ In our case foreign body extracted with Kelly clamp because of its shape and large dimension.

In summary, if a child with vaginal discharge that does not respond to hygiene measures and medical therapy, or if the vaginal discharge description is unusual, bloody, or persistent purulent foul-smelling, not consistent with clinical findings, gynecologist should suspect and examine for vaginal foreign body. The diagnosis and treatment should differ according to the shape, dimension and localisation of the object.

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