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Case Report

## Foreign body in vagina: a cause of persistent vaginal discharge in a prepubescent child

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### ABSTRACT

Vaginal discharge in prepubertal children is mainly due to hypoestrogenic state of vaginal mucosa making it thin and alkaline leading to mucosal invasion by pathogen. In paediatric case persistent foul smelling, blood stained discharge not responding to medical therapy should arouse suspicion of foreign body. Authors report an interesting case of 2 years old child who presented with persistent vaginal discharge and was found to have a retained foreign body in the vaginaneonatal resuscitation in preeclampsia. Acute fetal distress in labour or neonatal nursery admission could not be predicted.

**Keywords:** Children, Foreign body, Vaginal discharge

### INTRODUCTION

Vaginal discharge is a common gynecological complaint among pre-pubertal children. Vulvo-vaginitis is the commonest cause and the main predisposing factor for the vaginal discharge is lack of protective effect of estrogen on the vaginal mucosa making it susceptible to invasion by pathogens.<sup>1</sup> Persistent vaginal discharge in these children not responding to antibiotics should be investigated further to rule out rare causes like foreign body in vagina or vaginal tumors.

Young children tend to explore and place objects through the natural orifices of the body. Foreign body in vagina can cause foul smelling and blood-stained vaginal discharge, abdominal pain and serious complications like perforation through walls of vagina leading to vesico-vaginal or recto-vaginal fistula as well as systemic infection. Authors present a case of 2 years old child who presented with persistent foul-smelling vaginal discharge for 2 weeks and was diagnosed to have a retained foreign body in the vagina.

### CASE REPORT

A 2-year-old girl belonging to low socio-economic status was brought by her parents with complaints of greenish foul-smelling discharge from vagina for the past 2 weeks. Child was apparently normal 20 days back when she developed low grade fever which was treated symptomatically. Later, she developed greenish colour foul smelling discharge from vagina. There was no history of fever, incessant crying, trauma, or child abuse. Local examination revealed no signs of injury or excoriation marks on vulva, hymen appeared intact and minimal greenish discharge was seen at introitus. Routine investigations revealed a raised total leukocyte count and urinary tract infection. Culture of the vaginal discharge revealed acinetobacter which was treated with appropriate antibiotics. Ultrasound was done as there was a high index of suspicion for foreign body in vagina due to the persistent nature of vaginal discharge. Trans-abdominal ultrasound was reported normal and but trans-perineal ultrasound revealed a hyper echogenic mass with acoustic shadowing in the lower part of the vagina.

Patient underwent vaginoscopy and on entering the introitus, approximately 2 cm from the hymen a disc battery was identified and removed (Figure 1). There were no more foreign bodies inside vagina, no ulceration of vaginal walls and cervix appeared normal (Figure 2). Patients stood the procedure well and was discharged from the hospital next day.



**Figure 1: Disc battery.**



**Figure 2: Vaginoscopy view of cervix.**

## DISCUSSION

About 4-5% of all pre-pubertal girls who present with complaint of vaginal discharge have a foreign body. A variety of foreign bodies have been found in vagina including safety pins, hair clips, pencils, button battery, toilet tissues, groundnut etc.<sup>2</sup> Foreign bodies in the vagina cause local inflammation or irritation preceding classic symptoms like blood tinged or greenish discharge. If not detected early, vaginitis could result in ulceration of vaginal walls involving adjacent structures causing urinary and rectal fistula. This is particularly true in a case of button battery with lithium content which can cause caustic injury and damage to the mucosal walls of vagina starting within few minutes of contact. The older version of alkaline button battery has a lesser damaging

effect on mucosa than the lithium batteries. Vaginal foreign body is suspected when a child has recurrent foul smelling/ blood stained discharge. Diagnostic procedures include non-invasive imaging such as X-ray, USG, MRI, or in cases of negative imaging but high index of clinical suspicion, examination under anesthesia or vaginoscopy. Pelvic radiography is less sensitive but highly specific for vaginal foreign body. One study revealed that transperineal sonography has a sensitivity of 81% when compared to trans-abdominal sonography (33%) and when combined their sensitivity is 81% and specificity is 53% and ultrasound should be considered as the first step in the evaluation of foreign bodies.<sup>3</sup> In case of negative findings vaginal irrigation/diagnostic vaginoscopy should be considered. Approach to a suspected case of foreign body includes good history taking, careful and thorough clinical examination. Foreign body in the lower portion of vagina or near the introitus may be visible only by gently separating labia and removed using artery forceps, whereas foreign body in the posterior fornix of vagina needs examination under anesthesia and can be removed using vaginoscope.<sup>4</sup> However, foreign body in a child may be indicative of sexual abuse and the child should also be assessed psychologically and treated accordingly.

## CONCLUSION

In a child with persistent vaginal discharge unresponsive to general measures and medical treatment possibility of foreign body should be suspected. Early diagnosis and appropriate treatment can prevent many long-term complications.

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