CASE REPORT

PENETRATING INJURY TO THE VAGINAL VAULT: A CASE REPORT
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HOW TO CITE THIS ARTICLE:

ABSTRACT: Penetrating injury to the vaginal vault is quite an uncommon injury by its type. Here we present a case of 7yrs old girl presenting with bleeding per vaginum in the emergency department with bamboo stick protruding from her genitalia. She underwent removal of foreign body along with diagnostic laparoscopy. Her post-operative period was uneventful and she was discharged on her 5th postoperative day.

KEYWORDS: Penetrating injury, vaginal vault injury, bamboo stick injury.

INTRODUCTION: Given the anatomical location and adipose padding of the labia majora, accidental vulvar and vaginal injuries are rare. Conversely, as children lack such well-developed fat pads in the labial area, genital injuries are comparatively easily found in this age group.¹ Presentation of these cases vary widely. They can present as a case of bleeding per vaginum or vulval haematoma. Rarely these cases may present in a state of hemorrhagic shock due to retroperitoneal bleeding from a retracted vessel.²

Often requiring a general anaesthetic, a thorough examination of the vulva and vagina will allow estimation of the stability and size of the wound, and the integrity of surrounding organs such as bowel, bladder, urethra and rectum.¹ Treatment goals include achieving homeostasis and restoration of normal anatomy. Irrigation, debridement and primary repair are desirable methods. If the peritoneal cavity has been breached, a transabdominal exploration (Laparoscopy) is mandatory to exclude inadvertent visceral injury.

CASE REPORT: Miss PB, a 7 yrs old girl presented in the emergency department with complaints of excruciating pain in the perineum area along with bleeding per vagina. She gave a history of severe pain in the perineum as soon as she dived into a local pond to take her bath.

General examination revealed gross pallor and tachycardia. On local examination, a bamboo-sticks (about 1 and half inches thick and 3inches long) was found to be protruding from the introitus. On catheterization, her urine was found to be clear and she suffered no problem while passing stool. After initial resuscitation with blood and volume expanders, the patient was put under examination of the wound under general anesthesia.

During examination under anaesthesia in the operation theatre it was found that the above mentioned bamboo stick had made a penetrating injury through the posterior fornix and has entered the abdomen through the pouch of Douglas. There was a rent of about 1.5cm×2cms in the pouch of Douglas which was marked as the entry point of the foreign body into the abdomen.

Rest of the genitalia, including the anterior and lateral fornices, the urethral opening and the rectovaginal septum was found to be uninjured.
MANAGEMENT: After the site, size and the severity of the wound were specified, the foreign body was tried to be removed from its impaction size. The foreign body was given a few tentative pulls where it showed a tendency of dislodgement which assured the fact that it was most probably not entangled within the gut loops. The foreign body was grasped by Allis tissue forceps and gently pulled out.

A long bamboo stick of 6 inches by one and half inches was taken out completely from its entry point. The rent on the posterior fornix (Pouch of Douglas) was repaired with 2-0 vicryl. (Delayed absorbable suture). Homeostasis was secured. Vagina was packed with soaked gauze pieces to achieve antisepsis and pressure homeostasis. Next, she was put under diagnostic laparoscopy where no sign of any gut injury was revealed.

Post-operative Care: After the operation, the patient was kept under wide spectrum antibiotic coverage and good quality analgesics and her post-operative period was uneventful. She was put on oral feed from day 2. She resumed her usual bladder bowel habits from day 3 and was discharged on day 5 with regular oral antibiotics and analgesics.

CONCLUSION: Penetrating injury to the vaginal vault without the history of sexual assault is an extremely rare occurrence. In every such case detailed examination of the nearby organs to rule out any additional injury is extremely important. Removal of the foreign body coupled with diagnostic laparoscopy should be the ideal mode of evaluation in these cases. It may need a multidisciplinary approach in some selective cases with injuries also reflecting on the adjacent structures. The patient should be kept under close supervision as these cases may develop chronic fistula in the later course of time.

DISCUSSION: Direct vaginal trauma is an uncommon injury which can have significant short and long term physical and psychological consequences. In most cases it is caused by direct blunt trauma to an area containing a rich vascular network. Although this case didn’t have any associated injury to the surrounding organs, we agree with Dash et al (2006) when they were discussing non obstetric vulvar injuries that all cases require a thorough assessment for vulvar, vaginal, urethral, anal and bony pelvis injuries.

Geist reported that up to 75% of women in the emergency department with vaginal lacerations require repair. According to Geist’s review these patients usually have marked vaginal bleeding (80%) along with perineal and or lower abdominal pain. (10%‐20%). Lacerations extending into the peritoneal cavity occur in < 1% of the patients.

The spatial orientation of cervix to the long axis of vagina predisposes the posterior fornix to injuries. The reported case presented in the emergency department with bleeding per vagina and pain abdomen. Examination revealed a tear in the posterior fornix which later needed repair.

According to Habek et al, these cases of accidental and penetrating injuries to the genitals should receive broad spectrum antibiotics and tetanus prophylaxis. The reported case also received broad spectrum antibiotics for a full 3 days course.

Mitra et al. (2012) reported a single case of rectovaginal fistula due to prior penetrating injury to the vagina. This patient was also made aware of the possible complications and suggested regular follow up. Reports of traumatic vaginal injuries have been infrequent in the literature and
offer only a generalized approach to this problem. However severe vaginal injuries may result in life threatening blood loss. Preparation for these emergencies circumvents dangerous delays and inadequate examination and treatment. Justified and proper management of an individual case also prevents short and long term complications.

BIBLIOGRAPHY:


Figure 1: Foreign body in situ

Figure 2: Foreign body in the process of removal
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Figure 3: Foreign body after its removal