Case Report

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Non Obstetric Lower Genital Tract Trauma

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Abstract

Genital trauma presents a diagnostic and management issue to the treating clinician in view of varied clinical presentation and often non reliable and misleading history in view of the nature of the disease. These injuries can have serious short and long term physical and psychological consequences. This article discusses such a case to stress upon the need of thorough clinical examination and if required, surgical intervention in such cases.

Keywords: Genital injury, Non obstetric vaginal trauma.

Introduction

Although obstetric trauma remains one of the most common causes of female genital tract injury, injuries of non obstetric origin are not very uncommon [1-3]. These can both be coitus associated, non coital and those associated with abuse. Attributing to the varying mechanisms of trauma, nature and extent of the disease, these injuries may pose diagnostic and management challenges to the treating clinicians. The most common mechanism is direct blunt trauma to an area having rich vascular network. The various types reported in the literature include vigorous consensual and non–consensual coital injury, genital mutilation, foreign body insertion, blunt or penetrating trauma and physical assault. These injuries can have serious short and long term physical and psychological consequences. To emphasize the serious nature of this condition, we report this unusual case of vaginal trauma unrelated to childbirth or sexual abuse.

Case Report

A 40 year old multiparous lady was admitted to the emergency ward with a vaginal wall tear. Two days prior to the day of admission, patient had a history of fall while skipping a rope, following which she had slight vaginal bleeding, but remained well and continued to work. Later she developed slight abdominal pain for which she did not require any medication. She was passing adequate urine and had passed stools also once. She had a syncopal episode on the day of admission for which she sought a medical consultation, she was taken to a local hospital where a pervaginal examination was done and a tear in the posterior vaginal was was noticed, the upper extent of which could not be made out. Vaginal packing was done for her and she was referred to our institute with a per urethral catheter and vaginal pack in situ.

On enquiring further, her last menstrual period was 22 days back and she had regular cycles. There was no history of sexual intercourse, or abuse and no history of any instrumentation or intervention prior to the event.

Patient was a multiparous female with three term vaginal deliveries with last child birth 15 years back.

On general examination, pallor was seen and patient had a tachycardia with a heart rate of 120/min, and blood pressure of 110/70. Chest examination revealed no abnormality. Abdominal examination on inspection revealed no abnormality, however on palpation, tenderness, guarding and rigidity was present. Bowel sounds were present on auscultation.

On removing the pack, a few clots were seen but there was no active or torrential bleed. The local examination revealed a small tear on the left side of the introitus extending 2.5 cm towards the perineum. On per speculum examination, the left vaginal wall tear was found to extend high up and the apex was not visualized. Another tear was noticed on the right vaginal wall beginning from the middle third of vagina and extending towards the posterior fornix.

Considering the examination findings, patient was taken up for examination under anesthesia. The tear was seen extending into the posterior fornix with tear of the peritoneum of the pouch of douglas though which gut was felt on digital palpation. Patient was taken up for exploratory laparotomy in view of suspected intra abdominal injury. Intraoperatively, there was no hemoperitoneum. There was a transverse tear in the posterior fornix. The tear was repaired with 2-0 vicryl suture. Uterus was normal; gut was explored and found to be normal. Abdominal closure was done. Patient was repositioned in lithotomy position and the vaginal wall tears were repaired with 1-0 vicryl. The cervix and urethra were found to be normal.

The postoperative course of the patient was without major complications and she was discharged on sixth postoperative day in satisfactory condition.

Discussion

Vaginal injuries span a continuum of severity from the small contusions to major vaginal lacerations. The exact incidence of such trauma and injuries is difficult to determine since such injuries usually remain undisclosed. Extreme cases involve profuse genital, pelvic and intra-abdominal hemorrhage, pelvic fractures, perforations of the peritoneal cavity, intestines and bladder and can be fatal. (2,5-10) Upper vaginal wall lacerations account for 75% of the vaginal injuries that require repair. (6) Patients primarily present with marked vaginal bleeding (80%), pain (10%) and hypovolemic shock may occur in 3-15%. Lacerations extending into the peritoneum occur in 6% of the patients [6].

Sloin classified such non obstetric vaginal lacerations into two types. The first type is relatively minor and is associated with normal coital act and requires minimal treatment. The second type is deeper and more extensive with copious vaginal bleeding. It can be life threatening and demands immediate surgical intervention [11].

The most common mechanism of non obstetric injury to vagina is coitus [1]. Women at greater risks of such injuries are virgins, those who resume sexual activity after prolonged abstinence, friability of tissues, post hysterectomy and postmenopausal females with atrophic vagina or vaginal stenosis and scarring which might be expected in patients with congenital abnormalities, post surgery and post irradiation therapy [5]. However there have been cases reported in literature where parous women of reproductive age have suffered from trauma during apparently normal intercourse [12].

Non coital injuries may be a consequence of blunt or penetrating abdominal trauma which may or may not be associated with a pelvic fracture, polytrauma or may be due to straddle or fall astride injuries [2]. The straddle injuries are more frequently seen in young children and tend to limit themselves to lower vagina [1]. Water sports such as jet-skiing and water-skiing have also been reported to be associated with genital and perineal trauma and present with variable morbidity [13,14]. Major concerns in such injuries are depth of penetration, possibility of injury to intraabdominal organs, and infection from the water forced into the laceration [13].

Sexual abuse is another consideration in any patient with vaginal trauma. Lack of any external lesion, bruise or hematoma may be due to abuse than trauma. Self mutilation may be seen in patients with history of long standing sexual violence [15,16].

Although this viewpoint is much respected, our patients' presentation was contradictory and represents a case where the physical findings were not indicative of the cause or severity of underlying injury. The possible mechanism of injury in our patient remains debated. The presence of traumatic

injury on the perineum and the total lack of history or any intervention rules out sexual abuse. The most plausible explanation for the injury might be a fall astride injury on a penetrating object.

The diagnosis of such injuries is often not straight forward. Sometimes a misleading history as is common in cases with sexual abuse as well as a failure to perform a vaginal examination may lead to an erroneous diagnosis and failure to perform a prompt surgical intervention. Lone digital examination does not suffice in such patients and a thorough per speculum examination is mandatory to reach an accurate diagnosis. The extent of injury can be missed by not performing an adequate clinical assessment because of pain or blood clots obscuring the injury, hence examination under anaesthesia is recommended in these cases. Of utmost importance is to look for injuries in the upper vagina and the vaginal vault as these may be associated with peritoneal breach with concominant injury to the bowel, bladder or posterior wall of the uterus. A pregnancy test should also be done for all such patients.

A laparoscopic examination should be done to evaluate the pelvis in individuals with suspicion of intra-abdominal injuries and repaired in the same sitting. Some cases might need a laparotomy as is our case where laparoscopic management of the injuries is not possible or non availability of laparoscopic services in the emergency areas.

Another important consideration is gross underestimation of blood loss primarily owing to deficits in the history and long time interval from the onset of symptoms to arrival to the hospital due to the nature of the injury. Therefore in all such patients, hematocrit should be done at the time of admission along with arranging two units of rh compatible packed red blood cells. Thereafter it should be monitored by serial hematocrit values to access any ongoing loss.

Superficial injuries with minimal bleeding can be managed conservatively. Some of these might require vaginal packing [2]. In case of active bleeding and deep lacerations there is no role of conservative management and surgical repair should be undertaken preferably under anesthesia to ensure adequate exposure [12]. However, Jones et al. concluded that it is the continued bleeding rather than the size of the wound which determined the need of suturing. In patients with traumatic labial hematomas prompt surgical drainage should to done to decrease the pain and prevent secondary infection [2]. Good antibiotic cover for such patients and adequate fluid and blood replacement in patients with hypovolemia cannot be overemphasized. Help of a psychologist should be sought to supporting the patient when required [4].

Conclusion

Obstetric trauma is the most common cause of genital injury. Non obstetric causes incude coital and non coital injuries. Possibility of sexual abuse should be kept in mind in all such cases. History as well as clinical findings can be misleading in such cases and this mandates a thorough evaluation of the patient by clinical examination and if required by laparoscopic and laparotomic approach. Good antibiotic cover and supportive care should be emphasized.

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