

Vaginal Injuries Following Consensual Sexual Intercourse and Trauma- A Case Series

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ABSTRACT

Vaginal injuries following consensual intercourse are commonly encountered in clinical practice. They cause significant morbidity among sexually active women. Consensual vaginal intercourse may lead to minor hymenal or vaginal tears to rectovaginal fistula and in some cases severe haemorrhage shock can occur. It commonly results due to inadequate foreplay prior to penetration. Hereby, authors present four cases of vaginal lacerations of different age groups. The first patient bled profusely from the laceration and was haemodynamically stable; the second patient bled profusely and went into shock; the third patient presented with rectovaginal fistula who was newly married; and fourth patient was 13-year-old girl with third degree tear following trauma. The various risk factors for vaginal injury following consensual sexual intercourse are lack of foreplay, rigid perineum, vaginal atrophy and hindrance from partner. This case series highlights need of clinicians for proper and prompt diagnosis of condition and early surgical intervention in the management of the injuries and giving proper sexual education for the women.

Keywords: Consensual sex, Haemorrhagic shock, Rectovaginal fistula, Vaginal injuries

INTRODUCTION

Vaginal injuries following coitus are common in the clinical practice, though under reported [1]. They vary from minor vaginal tears with minimal bleeding to deep forniceal tear with severe haemorrhage leading to shock and death, if not promptly managed [2]. Major causes of vaginal injury are vaginal delivery, trauma, and sexual intercourse. According to literature, risk factors for vaginal tears, are either after consensual or nonconsensual sexual intercourse, the vaginal atrophy, lack of foreplay and rigid perineum [2,3]. First sexual experience, nulliparity, young age for coitus, forceful penetration and congenital weakness of the posterior vaginal wall has been concerned as probable reasons. Vaginal tears can present as minimal vaginal bleeding or severe leading to haemorrhagic shock [3]. Management of such cases is multidisciplinary. Early surgical repair of the tear provides better healing and less postoperative complications [4]. Here, four cases of vaginal tears with different presentations following consensual intercourse were presented.

CASE SERIES

Case 1

Newly married, 21-year-old female, nulliparous, presented with heavy bleeding one hour after the first intercourse. On examination, the patient was severely pale and in shock, with Systolic Blood Pressure (SBP) 80mm of Hg, Diastolic Blood Pressure (DBP) not recordable. Immediately resuscitation was done, two units of PCV transfused preoperatively, and tight vaginal packing done. Later, the patient was taken for examination under anaesthesia. She had posterior forniceal tear of 4-5 cm same which was sutured in layers with catgut No. 1 (Johnson and Johnson) intermittent sutures. The patient was transfused with two units of blood postoperatively. She was discharged on third day with oral antibiotics, and analgesics. Follow-up after two weeks showed well healed vagina. Later, the patient was advised to use lubricants at the time of intercourse.

Case 2

A 45-year-old women, presented with heavy bleeding following two hours after the intercourse at 1.00 am in middle of night with shock. The patient had soakage of petticoat, nearly 1000 mL (visual)

blood was lost. She had undergone total abdominal hysterectomy four years back from chronic pelvic inflammatory disease. On examination, the patient was severely pale, sweating. The SBP recorded was 70 mm of Hg, and DBP not recordable and immediate resuscitation was done, with foot end elevation, administering crystalloids, and inotrope support started with dobutamine infusion. Tight vaginal packing was done and transfused with two units of blood preoperatively. Later, examination under anaesthesia showed midvaginal tear 4 cm, and was sutured in layers. In this case vaginal tear was small, but still bleeding was profuse.

Case 3

A 20-year-old newly married female presented with rectovaginal fistula on seventh day after her first night, examination revealed 2 cm defect in midvagina with a fistula [Table/Fig-1]. The patient was taken up for surgery, vaginal wall was separated from rectal mucosa and fistula was repaired in layers with vicryl No. 1-0 [Table/Fig-2]. Follow-up of patient after four weeks revealed healed fistula.



[Table/Fig-1]: Rectovaginal fistula. (Case 3) **[Table/Fig-2]:** Repair of rectovaginal fistula. (Case 3). (Images from left to right)

Case 4

A 13-year-old girl had come to casualty with severe vaginal bleeding and thigh haematoma and severe pelvic pain following four hours of fall after tractor hit in road traffic accident. In this case, trauma was precipitating factor, not consensual sexual intercourse. On examination vitals were stable, midhigh laceration and third degree vaginal tear was present. The investigations showed severe anaemia with Hb-7 gm, and x-ray pelvis showed multiple fractures of pelvic bones. The patient was taken for evaluation under anaesthesia after one unit of blood transfusion, 3rd degree perineal tear was sutured

in layers, thigh laceration was sutured, pelvis was wrapped with bandage, and she was given strict bed rest for six weeks. The little girl started to walk after six weeks slowly.

DISCUSSION

Even though the act of coitus is supposed to be pleasurable, it could result in considerable morbidity and mortality in some women. Coital injuries range from simple abrasions to extensive laceration of the vaginal walls, fornices, cervix and urethra, rarely leads to rectovaginal or vesicovaginal fistula [3]. The actual incidence of vaginal injuries is not known, as many patients may not report to a doctor. Most of the cases may not need any medical treatment, as they heal spontaneously, but major lacerations need hospitalisation and surgical intervention. A 15% of the cases present with severe degree of shock. The lacerations usually measure 2 to 6 cm, located in midvagina or sometimes may extend upto posterior fornix. The lacerations extending into the peritoneal cavity may occur in less than 1% of cases [3]. The first and second case in this series had vaginal laceration which needed blood transfusion and resuscitation for shock. Oseni TIA et al., have reported a case series on consensual coital laceration where one case was reported in hypovolemic shock [1]. Women with coital injuries may report late to doctor sometimes with heavy blood loss. This delay may be due to embarrassment of the condition, or may be shy to report, or fear of spousal or parental knowledge. Cases with small hymenal tears resolve without medical intervention, but vaginal tears with bleeding require hospitalisation and may be fatal [5]. According to Geist RF up to 75% of women with vaginal lacerations require repair, patients usually have marked vaginal bleeding (80%) and lower abdominal pain (10-20%) [6]. Noncoital reproductive tract injuries often occur in the setting of multiple severe injuries following fall on sharp objects, or following accident and usually require operative intervention with multidisciplinary approach [7,8]. Vaginal lacerations can also occur as a consequence of blunt or penetrating abdominal trauma, as a result of pelvic fractures [8]. Vaginal lacerations have also been reported in association with injuries sustained while in straddle positions. Straddle injuries are more common in children and limited to lower vagina. Genital tract injuries have been reported in association with water sports such as water-skiing, a skiing, jet-skiing and other sports such as cycling and high jump. These injuries can vary from vulvar haematoma, minor vaginal tears to life threatening lacerations with heavy vaginal bleeding [8,9]. In this case series, patient (13 year old) had traumatic vaginal lacerations following fall which was successively managed.

The various risk factors for coital injuries are first sexual intercourse [2,3], inadequate foreplay, rough coitus, vaginal atrophy as in postmenopausal women, congenital or acquired shortness of vagina [1,10]. In this case series, the first and third patients were not emotionally ready for sex and did not have adequate foreplay prior to penetration. The second patient was posthysterectomy patient with

dry vagina, hence dry vagina and rough coitus could have caused the tear. Case three had rectovaginal fistula following intercourse, usually occur following child birth injury following obstructed labour but rare following sexual intercourse and is reported when excessive force is used [2,11,12]. It usually occurs on the lower one-third of the rectum but proximal to the hymenal ring. Early repair or treatment as in our case is essential to avoid complications. Ugurel V et al., have reported a case of isolated rectovaginal fistula following consensual vaginal intercourse and they have successfully repaired fistula in three layers [2]. Sex education and counselling is essential in preventing this condition from happening. Fletcher H et al., have reported two cases of posterior fornix perforation with hypovolemic shock after sexual intercourse in two young women. In both cases, there was a delay in the diagnosis because there was illicit sex. Both women however, eventually had laparotomy and uneventful postoperative outcomes [4]. Patient and her partner should be counselled on the importance of sex and adequate foreplay as well as use of lubricants before sex. Nonsexual injuries of the genital tract occur in the setting of multiple severe injuries following trauma and usually require surgical intervention [4]. Genital tract injuries are a result of blunt or penetrating abdominal trauma, as a result of pelvic fractures.

CONCLUSION(S)

In conclusion, vaginal injury can vary from small vaginal tear to forniceal perforation with shock and rectovaginal fistula. It is necessary to manage injuries promptly with resuscitative measures and evaluation under anaesthesia for prompt surgical management. With appropriate counselling and sex education, such injuries can be prevented.

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