



## ■ Case Report

### Non –Obstetrics Vaginal Lacerations from Consensual Coitus: A Case Series

Adegoriola Olubisi Ojurongbe<sup>1</sup>, Matthew Olusegun Fijabiyi<sup>2</sup>, William Oladiran Taiwo<sup>3</sup>, Abdulfatai Usman Abubakar<sup>1</sup>, Oluwasegun Ajala Akanni<sup>1</sup>, Adekunle Duyile Adebayo<sup>2</sup>, Toyin Oluwumi Fijabiyi<sup>4</sup>.

<sup>1</sup>Department of Obstetrics and Gynaecology, Federal Medical Centre Keffi, Nasarawa State, Nigeria;

<sup>2</sup>Department of Obstetrics and Gynaecology, College of Clinical Sciences, Ladoke Akintola University of Technology, Ogbomoso, Oyo State, Nigeria<sup>3</sup>; The Limi Hospitals, Federal Capital Territory, Abuja, Nigeria;

<sup>4</sup>Department of Family Medicine, Federal Medical Centre Keffi, Nasarawa State, Nigeria.

#### Summary

Consensual coital lacerations are commonly encountered in clinical practice, though not as common as lacerations sustained during childbirth, they account for significant morbidity and occasional mortality among sexually active women. Sexual intercourse which is consensual should ideally not cause any form pain or injury as opposed to rape. When minor injuries occur, it usually resolves with minimal or no intervention. Occasionally, severe coital lacerations may occur and they are usually deeper and more extensive resulting to life threatening blood loss, which can result in morbidities and in rare cases, mortalities. Coital laceration commonly results from inadequate foreplay prior to penetration leading to non-lubrication of the vagina. Coital injuries are unlikely to be reported or may be misdiagnosed and eventually mismanaged. The authors reported their experiences in the management of patients with coital laceration, the mechanism of injury and associated risk factors were also highlighted. The authors presented five cases. All five patients were not adequately lubricated prior to penetration due to inadequate foreplay. All were consensual and were either with their lovers or spouses. None of them was circumcised or had had any form of genital mutilation. These case series bring to the front burner the common mechanism of injury during consensual coitus, common anatomical location of injury. It also emphasis the need for clinicians to have high index of suspicion when reviewing sexually active women with history of vaginal bleeding, as the history might be grossly inadequate and misleading due to socio-cultural stigma. Timely diagnosis and prompt intervention, which may require surgical repair, can be lifesaving.

#### Corresponding author

Matthew Olusegun Fijabiyi,  
Department of Obstetrics and  
Gynaecology,  
Ladoke Akintola University of  
Technology, Ogbomoso  
Oyo State, Nigeria.  
Email: :  
fijabimatthew.fm@gmail.com  
Phone no- 08030777542

**Keywords:** Non- Obstetrics; Vaginal; Lacerations; Consensual; Coitus; Shock

#### Introduction

Consensual sexual intercourse should ordinarily be a pleasurable activity to both partners.<sup>1</sup> However, in some cases injuries ranging from self-limiting minor vaginal injury such as bruises with minimal bleeding

to life threatening tear with severe bleeding could ensue. This severe bleeding could progress to haemorrhagic shock and death if not promptly managed. Consensual coital injuries are not uncommon in gynaecological practice, yet available data are relatively scarce.<sup>1,2,3</sup> This might be because sex is seen as shameful topic to be discussed and taboo in extreme cases. Complaints regarding coital injuries could also be perceived as shameful as a result of cultural stigmatization associated with sex related issues in our environment.<sup>1,2</sup> Consensual coital injuries are therefore most likely underreported especially when the injury is minor.<sup>3</sup> However, some of the major and life threatening consensual coital injuries do present to the hospital for care, but early diagnosis and prompt management may be challenging due to shame and awkward perception attributed to discussion regarding sexual intercourse among women as well as limited experiences by care givers.<sup>2,3</sup> The true incidences of consensual coital injuries are difficult to ascertain, especially because the nature of vaginal injury usually remains undisclosed.<sup>2</sup> Some authors had reported incidence ranging from 0.34% to 0.7% of all gynecological cases in Nigeria.<sup>4</sup>

The scarcity of data on this subject underscores the need for this case series to create awareness especially with the decline age at first sexual debut (coitarche) and add to the body of knowledge.

### Case Series

Presented here are five patients with consensual coital vaginal lacerations who presented and were managed by the authors. Three of the patients presented in hypovolaemic shock. None of them was circumcised or had any form of genital mutilation.

#### Case 1

An 18-year-old P 0<sup>+0</sup> young lady, who sustained a deep transverse laceration about 4cm in length and 2cm in depth on the posterior fornix of the vagina with other minor bruises on the lateral vaginal walls. She presented eight hours after onset of bleeding in hypovolaemic shock. She sustained the injuries while having consensual sex with her boyfriend. She was said to have been placed in the missionary position during the intercourse. There was no adequate foreplay prior to penetration.

#### Case 2

A 17-year-old P 0<sup>+0</sup> single undergraduate student, who had a deep longitudinal laceration on the posterior fornix extending to the mid vagina. The laceration

measures about 5cm in length and 2cm in depth. She presented to the hospital six hours after onset of vaginal bleeding in hypovolaemic shock. This was her sexual debut with her first boyfriend, who was equally having sex for the first time. Foreplay was not adequate, and she was not properly lubricated as the act was done in a hurry to avoid being seen by friends.

#### Case 3

A 32-year-old nulliparous woman who was newly married. She had a deep laceration of about 5 centimeters in length and 2 cm depth on the right posterior-lateral wall of the vaginal. She presented a day after onset of bleeding in stable clinical condition. She was having consensual sex for the very first time with her husband, who incidentally is having sex for the first time. She thought the bleeding was from the hymen and only presented when it persisted. There was no adequate foreplay.

#### Case 4

A 53-year-old P<sub>1</sub><sup>+0</sup> (1 A) who is married and two years postmenopausal. She sustained a deep transverse laceration about 4cm in length and 1.5cm in depth on the anterior wall of the vagina. She presented twelve hours after onset of bleeding in stable clinical condition. She sustained the injuries following consensual intercourse with her husband who was on Sildenafil for treatment for erectile dysfunction. There was no adequate foreplay as the husband hurriedly penetrated her as he achieved some level of erection.

#### Case 5

A 24-year-old P 0<sup>+1</sup> single lady who had a deep longitudinal laceration measuring about 5cm in length and 2cm in depth on the posterior fornix of the vagina. She presented to the hospital three hours after onset of vaginal bleeding in hypovolaemic shock. She has not had sex for two years because her boyfriend had been away. She sustained the injury while having consensual sex with him on his return. Foreplay was not adequate, and she was not properly lubricated.

### Treatment

The first, second and the fifth patients presented with hypovoleamic shock, thus they required aggressive fluid resuscitation and blood transfusion to correct the hemorrhagic shock. All the patients had emergency examination under general anaesthesia in lithotomy position and under good lightening in the

theatre. The findings revealed vulvas smeared with blood and the urethral orifices that appeared normal. The anterior, posterior vaginal wall as well as the posterior fornix were inspected. The site and the extent of the lacerations were noted. Digital rectal examination was done which ruled out rectal involvement in all the patients. The lacerations were repaired with viracyl 0 suture in continuous interlocking fashion in two layers. All the patients had digital rectal examination after the repair to ensure that the rectum was suture free. The three patients that presented in hypovoleamic shock were transfused with two to three units of crossed matched group O positive blood depending on the degree of shock. The packed cell volume for all the patients post-operatively ranged between 30-32%. The other two patients that were clinically stable were placed on oral haematinics. All the five patients had broad spectrum antibiotics. The 3 undergraduate students that were single were placed on emergency contraceptives and further advised on use of barrier contraceptive whenever they want to engage in sexual intercourse in the future. The role of adequate foreplay was reiterated to all the patients. They all had satisfactory immediate postoperative period and were discharged home within twenty-four to forty-eight hours of repair.

## Discussion

Non-obstetric laceration of the vaginal wall following coitus is a usual occurrence, though under-reported in our environment, particularly at coitarche.<sup>1,5</sup> It can vary from minor tear with self-limiting, minimal vaginal bleeding to life threatening tear with severe bleeding which could progress to haemorrhagic shock and death if not promptly managed.<sup>1,2,3</sup> This was the situation in our first, second and fifth cases. They all presented in haemorrhagic shock. The true incidence of such injury is difficult to ascertain, especially because post-coital vaginal injury usually remains undisclosed. The low incidence may be related to the shame and secrecy attached to the condition which makes most cases to linger in silence and only a few severe cases and those related to rape cases reported to the hospital for medical attention.<sup>1</sup> Our third and fourth did not present early due to shame.<sup>1,2</sup>

Coital laceration may involve single or multiple sites. The right side of the posterior fornix is the most frequently affected site. This is because the posterior fornix is the part of the vaginal that receives the penile thrust during intercourse. Also, the endopelvic fascia of the posterior vaginal fornix is weak thus the predisposition to injuries.<sup>6</sup> Other reporters had implicated the dextrorotation

characteristics of the uterus which is thought to cause the distensibility of the vagina in this area.<sup>6</sup> Other areas such as the vagina vault and the clitoris might also be involved. The vagina prepares itself for penile penetration by adequate lubrication during sexual desire. Inadequate lubrication of the vagina before coitus reduces the vagina elasticity especially in the posterior fornix.<sup>3</sup> All the patients in the cases reported did not have adequate foreplay and reported not being properly lubricated before the penetrative sexual act.

The common predisposing factors to coital injuries include nulliparity, rough coitus, first sexual intercourse, harmful positions such as dorsal decubitus (missionary) position, peno-vaginal disproportion, and use of aphrodisiacs as vaginal lubricant, insertion of foreign bodies, penile jewelry and inadequate emotional and physical preparation of women for sexual intercourse.<sup>3,4</sup> Other risk factors are increased friability of the vagina associated with menopause, pregnancy, puerperium.<sup>3</sup> In some cases, intimate partner abuse should be considered as a cause of injury and this calls for an empathic and systematic evaluation.<sup>4,7</sup> All the patients did not have foreplay before coitus. In addition, the sex position (missionary) assumed, sexual debut and use of aphrodisiacs contributed to the coital laceration in the first, second, third and fourth respectively. The mechanism of injury include peno-vaginal discrepancy at coitache, inadequate lubrication from lack of foreplay, exposure of weakened posterior vaginal fornix which occurred when intercourse is done in awkward sexual position.<sup>3,4,6</sup> Women with vaginal Injuries from coitus may present late due to embarrassment or fear of spousal or parental knowledge, thus increasing morbidity from blood loss.<sup>8</sup> This was seen in cases three and four.

Prompt and proper evaluation of this condition is important to prevent complications such as haemorrhage, sepsis, vaginal stenosis, injury to abdomino-pelvic organs, recto-vaginal fistula, vesico-vaginal fistula and death from occurring.<sup>3,8</sup> A rectal examination must be performed in all cases of coital injuries on the posterior vaginal wall to rule out rectal involvement. Unnoticed rectal injury left unrepaired might leads to rectovaginal fistula.<sup>4</sup> None of the cases presented had rectal involvement.

Management includes resuscitation with intravenous fluid, blood transfusion in severe blood loss and surgical repair of the laceration. This was the line of management for all the patients, three of them with extensive laceration with hemorrhagic shock were transfused with blood.

Extensive laceration should be repaired in the theatre with absorbable suture under general.<sup>7</sup> This will enable the base of the tear to be clearly seen in order to exclude involvement of peritoneal cavity.<sup>8,9</sup> Vaginal laceration with peritoneal cavity involvement is approached through laparotomy where any intraperitoneal organ involved is treated as well.<sup>9-11</sup>

### Conclusion

Coital laceration is not uncommon in gynaecological practice, there is therefore a need for public enlightenment on sexual response and the risk factors associated with coital laceration in order to reduce the incidence. Patient and their partner should be counseled on the importance of adequate foreplay before penetrative intercourse. A high index of suspicion, tactful, privacy, empathy and good clinical judgment approach is a necessary requirement for early diagnosis and good management.

**Conflict of interest:** Authors declare no conflict of interest.

**Disclosure:** None.

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