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Original Research Article

Coital trauma as seen at Alex Ekwueme Federal University Teaching Hospital Abakaliki, Nigeria

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ABSTRACT

Background: Though pleasurable, coitus may result in morbidity and even mortality. One of such morbidities is coital trauma, a global occurrence that is grossly under reported. This study aimed to determine the causes and risk factors for coital trauma as well as its clinical presentation.
Methods: This was a 4 year retrospective study of patients that presented with coital injuries at Alex Ekwueme Federal University Teaching Hospital, Abakaliki. Data were obtained from patients' clinical notes using a specially designed proforma. Statistical analysis was performed using Epi Info™ 7.2.1.
Results: The majority of women that presented with coital trauma were adolescents (67.9%). Most of them were single (92.9%), nulliparous (89.3%) and had only primary education (57.1%). The commonest cause of coital trauma was rape (75%). The commonest risk factors were inadequate foreplay (57.1%) and coitarche (42.9%). Other risk factors were genital disproportion, pregnancy, puerperium and influence of drugs. The common clinical presentations were vaginal bruises (75%) and vaginal lacerations (64.3%) while the commonest site of injury was the hymen (42.9%) followed by the vulva (35.7%). Other less common sites of injury were the lower vagina and posterior fornix.
Conclusions: Coital trauma is relatively common and young girls are mainly affected. Rape is the major cause while inadequate foreplay and coitarche are the major predisposing factors.

Keywords: Coital, Trauma, Morbidity, Mortality, Abakaliki

INTRODUCTION

Non obstetric genital injuries are gradually becoming a common cause of genital injuries and coital injury in the society is not an uncommon occurrence but seldom reported.[1-10]

Coital trauma refers to injury to genital tract following sexual intercourse with or without consent.[2-15] Non-obstetrics vaginal lacerations can span a continuum of severity from minor trauma as a result of normal coitus to major vaginal injuries.[3] It can also be extensive and life threatening.[4]

It has been reported that non-obstetric genital injuries could represent as many as 1 per 1,000 gynaecologic emergencies and 0.7% of the total gynaecologic admissions.[5-7] Predisposing factors include forced or rough coitus, sexual brutality as in the case of rape and when the woman is not adequately prepared as in marital homes and consensual intercourse.[8] Others include genital disproportion, post-menopausal vaginal atrophy, pregnancy, puerperuim, congenital and acquired shortness of the vaginal and the position assumed during sexual intercourse such as sitting and dorsal decubitus.[2,10,11] Also nulliparity, low levels of education, nonconsensual and premarital sex with little or no fore

play as earlier noted were strongly correlated with the risk of coital trauma.[10,11]

Various presentations of coital injuries require careful evaluation, correct diagnosis and management for a successful outcome with minimal morbidity.[12] A quick diagnosis will require a high index of suspicious by all attending physicians followed by prompt and good physical examination including examination under anaesthesia under adequate lightening.[13] The usual site of occurrence is the right side of the posterior fornix in both consensual and non-consensual sex and in the vault of the vagina often in the right rather the left lateral wall.[13] This location also supports the idea of sexual disproportion or obvious anatomic reasons.[14] Other locations such as clitoris, laceration of the lateral vaginal wall often observed is an in frequent finding in available report.[14] Vaginal laceration may be single or multiple.[15]

Bleeding can be profuse leading to haemorrhagic shock, and these injuries may require transfusion of blood products and surgical repair in some cases.[16] Other complications may include haemoperitoneum, pneumoperitoneum and retroperitoneal hematoma even in the absence of vaginal perforation, rectovaginal fistula due to rectal injury, vesicovaginal fistula, vaginal stenosis, sepsis and occasionally death.[17] The main presentation is usually that of sudden onset of vaginal pain accompanied by profuse bleeding which if not quickly arrested will result in fatality.[17] Prompt patient resuscitation, vaginal tamponade and repair of the laceration in theatre is required to reduce morbidity and possible mortality sometimes associated with this condition, especially in culturally and religiously restrictive societies.[16] Coital trauma is not uncommon in our environment but under reported. Sex education, counseling and enforcement of laws to forestall occurrences of sexual violence will go a long way in reducing the menance.[17] This study sets out to identify its existence and prevalence at Alex Ekwueme Federal University Teaching Hospital, Abakaliki with the objectives of finding the risk factors and the causes and ways to reduce the morbidities and probably the mortality associated with it.

METHODS

Study place

The study was carried out at the Gynaecological Emergency Department of Alex Ekwueme Federal University Teaching Hospital (formerly known as Federal Teaching Hospital), Abakaliki, Ebonyi State, Nigeria. The hospital is the only Tertiary Hospital in Ebonyi state. It was formed in 2012 from the merger between the former Federal Medical Centre (FMC), Abakaliki and the then Ebonyi State University Teaching Hospital (EBSUTH), Abakaliki. It is located in Abakaliki, the state capital and receives referral from all parts of the state and neighbouring states of Enugu, Cross River, Abia and Benue.

Study design

This was a retrospective study of coital lacerations managed at the Alex Ekwueme Federal University Teaching Hospital, Abakaliki between 1st January 2012 and 31st December 2015.

Data collection

Data were collected from the clinical folders of patients managed for coital injury at the gynaecology emergency department.

Data analysis

Data analysis was performed using EpiInfo version 7.2.1. The results were presented in tables as frequencies and percentages.

RESULTS

A total of 34 folders were retrieved but 28 folders had the complete information required for the study. Therefore, Coital trauma constitutes 34 out of 7175 gynaecological admissions that were seen within the study period. The incidence of coital trauma was 0.47% of all gynaecology cases seen during the study period.

Table 1: Sociodemographic characteristics of women with coital trauma.

Characteristics	Frequency	Percentage (%)
Age (years)		
<10	3	10.7
10-19	19	67.9
20-29	4	14.3
30-39	2	7.1
≥40	0	0
Parity		
0	25	89.3
1	0	0
2	2	7.1
3	0	0
≥4	1	3.6
Educational status		
No formal education	1	3.6
Primary	16	57.1
Secondary	8	28.6
Tertiary	3	10.7
Marital status		
Single	26	92.9
Married	2	7.1

Majority of the patients (67%) who had coital trauma were between the ages of 10 and 19 years while the least percentage (7%) was between 30 and 39 years. Patients less than 10 years of age constituted 10% while those between the ages of 20 and 29 years were 14%. Nulliparity and low parity constituted 97% of cases coital trauma. Majority of the cases (92%) were single and about 97% of patients had at least primary level of education (Table 1).

The commonest aetiological factor was alleged rape seen in 75% of the cases. Trauma at coitarche was seen in 28% of cases and 86% of cases were non-consensual. Other risk factors included pregnancy 7%, puerperuim 3% influence of drugs 3% and inadequate foreplay 57% (Table 2).

Table 2: Causes, risk factors and consent for coitus.

Characteristics	Frequency	Percentage (%)
Causes		
Rape	21	75.0
Rough sex	5	17.9
None	2	7.1
Risk factors		
Coitarche	8	28.6
Pregnancy	2	7.1
Puerperium	1	3.6
Influence of drugs	1	3.6
Inadequate foreplay	16	57.1
Consent		
Non-consensual	4	14.3
Consensual	24	85.7

Table 3: Clinical presentation and site of injury following coital trauma.

Characteristics	Frequency	Percentage (%)
Clinical presentation		
Laceration	18	64.2
Bruises only	8	28.6
Vulvo-vaginal haematoma	1	3.6
Hypovolaemic shock	1	3.6
Fistula	0	0
Site of injury		
Lower vagina	6	21.4
Posterior fornix	7	25.0
Vulva	2	7.1

Majority of women who had coital trauma presented with vaginal bleeding and pain. Of all the patients who presented with coital trauma, 66% had vaginal laceration, 28% had bruises at the vulva and vaginal, and 3% had vulva haematoma and hypovolemic shock. Hymenal injury was seen in 28% of the patients, 21% each had injury at the fourchette and lower vagina. Laceration at the posterior fornix was seen in 25% of cases and 7% had injury at the vulva (Table 3). All the patients had broad spectrum antibiotics and hematinics. Examination under anaesthesia and repair of laceration was done in 36% of the cases, vaginal packing was the mode of treatment in 20% of cases while 44% of patients had wound dressing done. Only one patient had blood transfusion due to hypovolemic shock.

DISCUSSION

Non obstetric genital injuries are gradually becoming a common cause of genital injuries.[5] Coital injury in the society is not an uncommon occurrence but seldom reported.[8] In this study, coital trauma constituted 0.4% of all gynaecological patients seen. This is lower than 0.7% reported in New York, USA and much lower than the case reported in a Nigerian Urban setting.[6] The lower incidence may be related to the stigma attached to the condition.

In this study, majority of the cases were nulliparous and single. This was similar to the findings in Maiduguri and Nigerian Urban setting.[6,8] Also it was found that majority of the patients were teenagers which was similar to the finding in Maiduguri and Calabar Nigeria but a little different from the finding in limbe regional hospital.[5,8,17] Fifty seven percent of the patients had primary level of education and 3% had no formal education this was in sharp contrast to the finding in Maiduguri where 45% of the patients had no formal education.[8]

Rape was the commonest aetiological factor seen in 75% of cases. This was not surprising as 65% of our patients were teenagers and rape is commonly seen in young ladies. A similar finding was reported in limbe regional hospital, Calabar and in Maiduguri this was in contrast with the findings in urban Nigeria setting by Omoghoja that reported inadequate or lack of foreplay as a significant risk factor in coital injuries.[3,5,8,17]

In this study, it was found that coitarche was a major predisposing factor to coital trauma especially when there is nonconsensual sex as was the case in 86% of cases and therefore more traumatic. This is similar to the finding in Maiduguri.[8] Inadequate foreplay was a risk in 57% of cases and pregnancy in 7% of cases. Whereas puerperium and influence of drugs accounted for 3% of cases.

The commonest clinical presentation found in this study was vaginal bleeding and pains. This was similar to the findings at limbe region hospital and Nigerian urban setting.[5,8] Also in this study, there was a case each of hypovolemic shock and vulva hematoma. This was similar to the study done in Maiduguri, Calabar and New York.[8,12,17] The patient in hypovolemic shock had blood transfusion to correct anaemia. Vulva haematoma is a rare occurrence and was only seen in 3% of the cases.

The hematoma was evacuated and the incision made was repaired. This was similar to the finding in Maiduguri.[12]

The commonest site of injury reported in this study was the hymen in 28% of cases so also the lower vagina and fourchette in 21% of cases. This was in consonance to the findings in Maiduguri and Calabar.[8,17] However it is in contrast to the finding by Jones and Tchozounu that found the posterior vaginal fornix as the commonest site of injury.[5,8] This accounted for 25% of cases in this study. This may probably be due to the fact that most of patients were teenagers and had not had sex prior to the rape thereby leading to trauma to the hymen, fourchette and lower vagina. Trauma to the posterior vagina fornix is seen in parous women who may have had consensual or nonconsensual sexual intercourse as found by Tchozounu.[8]

The commonest complication in this study where hemorrhagic shock and vulva hematoma each in 3% of cases. This was in agreement with findings by Manohar et al.[12] However, was in contrast to Alex that found posterior fornix perforation with evisceration of intra-abdominal contents.

CONCLUSION

Coital laceration though appears rare but is not uncommon. Hence effort should be made to encourage youth and adolescent centres were cases of rape can be reported and adequate corrective measures meted out to forestall future recurrence.

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