
ORIGINAL RESEARCH—WOMEN'S SEXUAL HEALTH

Retrospective Analysis of Clinical Features, Treatment and Outcome of Coital Injuries of the Female Genital Tract Consecutive to Consensual Sexual Intercourse in the Limbe Regional Hospital

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ABSTRACT

Introduction. Nonobstetrical genital injuries are gradually becoming a common cause of genital injuries. Consensual sex has been reported to be a possible cause of this type of injuries, but its contribution to traumatic lesions of the female genital tract is not well known. It has been suggested that injury consecutive to consensual sex can be extensive and life-threatening.

Aim. The aim of this study was to analyze the clinical features, treatment modalities, and the outcome of injuries to the female genital tract consecutive to a consensual sexual intercourse.

Methods. A retrospective review of records of female patients admitted in our institution with a complaint of genital injury over a 5-year period. We collected data regarding patient and injury characteristics, findings of the gynecologic examination, modalities of management and final outcome.

Main Outcome Measures. Anatomic location and nature of injury, modalities of management, admission rate and mortality rate.

Results. Forty six cases could be analyzed. Their mean age was 25.6 years. Almost 35% of patients sustained the injury during their first sexual contact. The majority presented with bleeding, often combined with pain. One patient presented with features of peritonitis. During examination, no anatomic lesions could be identified in 16 (34.8%) of patients. When a lesion was present, it concerned mostly the posterior fornix (28.3%) and the lateral vaginal wall (10%). The most frequently described lesion was a laceration. The majority of patients (83%) were treated with suturing under local anesthesia. The admission rate was 28%, and was significantly higher in patients with a laceration of the posterior fornix. No death was recorded.

Conclusions. Coital injuries following consensual sex often present in the form of a life-threatening condition and young female with no previous sexual experience are particularly exposed. Most lesions can be treated with a simple suture. **Tchounzou R and Chichom-Mefire A. Retrospective analysis of clinical features, treatment and outcome of coital injuries of the female genital tract consecutive to consensual sexual intercourse in the Limbe Regional Hospital. Sex Med 2015;3:256–260.**

Key Words. Coital Injuries; Non-obstetrical; Consensual Sex

Introduction

Although obstetric injuries remain the most common cause of traumatic damage to the female genital tract, nonobstetric injuries are becoming a frequent gynecologic emergency. This type of injury usually occurs as a consequence of rape and other forms of sexual violence [1,2]. It has been reported that nonobstetric genital injuries could represent as many as 1/1,000 gynecologic emergencies [1–3].

The contribution of coitus to nonobstetric traumatic lesions of the female genital tract has been estimated to be around 32% [4]. Most female genital tract injuries consecutive to coitus are minor injuries following “normal” sexual intercourse, frequently during the first sexual experience in the female patient [5]. This type of injury usually resolve with no or minor treatment [6]. However, coitus sometimes results in more extensive lacerations of the female genital tract causing profuse life-threatening vaginal bleeding and requiring immediate intervention [7]. It has been reported that nonconsensual intercourse results more often in severe injuries [6,8,9]. Factors such as male to female “disproportion,” chronic vaginal infection, position during coitus, long period of sexual abstinence, and the use of aphrodisiacs have been reported to increase the risk of occurrence of sexual injury during coitus [2,10,11].

Data on genital injuries following consensual sexual intercourse are scarce. Existing data report mostly injuries following civil or sexual violence [1,4] or target specific age groups [8,11,12]. To the best of our knowledge, no report on the problem of coital injuries has been proposed in Cameroon.

Aims

The aim of this study was to analyze the epidemiologic profiles, clinical characteristics, and outcome of injuries to the female genital tract following consensual coitus.

Methods

This retrospective analysis was conducted in the emergency department and the maternity ward of Limbe Regional Hospital in Cameroon over a period of 5 years, from January 1, 2007 to December 12, 2012. This referral center is a 200-bed hospital located in a semi-urban setting with an Emergency Department, which is functional 24 hours per day and a maternity of 24 beds

capacity. This maternity is run permanently by two obstetricians–gynecologists. Cases requiring surgery can be taken to one of the two operative rooms, which are shared with the surgical department.

This study obtained ethical clearance from the Institutional Review Board of University of Buea and administrative clearance from the hospital. The records of all female patients who presented to the emergency department or to the maternity during the study period with complain of a genital injury consecutive to consensual coitus. The notion of consensus was considered based on patient’s statement as recorded in the file. All patients who reported rape or other forms of sexual intercourse out of the scope of consensus were excluded.

For all patients included, we used a data collection sheet to retrieve information regarding demographic characteristics, obstetric history, date of first sexual intercourse, findings of the gynecologic examination, modalities of management, and final outcome.

Results

A total of 53 patients presented to the emergency department during the study period with an injury sustained during a consensual sexual intercourse. Seven patients had incomplete records and were excluded. The final analysis involved 46 patients.

Table 1 summarizes some of the epidemiologic characteristics of our patients. According to this table their ages ranged from 14 to 49 years with a mean of 25.6 years \pm 9.7 years. Patients aged 14–22 years seemed to be more exposed. A total of 24 patients (52.17%) were married and 11 (45.8%) of these sustained the injury while involved in illicit sex activity (sex with someone else than the spouse or with the spouse of someone else). The majority of patients (54.3%) had been pregnant at least once.

Table 2 summarizes the clinical characteristics of our patients. As many as 16 of them (34.8%) sustained the injury during their first sexual intercourse. Almost all patients presented with multiple complaints. The most frequent combination was bleeding and genital pains observed in 35 (76%) of cases. One patient presented for consultation 3 days after the injury with obvious signs of acute pelvic peritonitis. This patient reported having sustained the injury in a situation of illicit sex. In one case, the bleeding consecutive to coitus delayed the diagnosis of a ruptured ectopic preg-

Table 1 Some of the epidemiological characteristics recorded in our patients

Characteristic	Number	Percentage
Age distribution		
14–18	10	21.8
19–22	8	17.4
23–26	8	17.4
27–30	3	6.5
31–34	6	13
35–38	4	8.7
39–42	4	8.7
43–49	3	6.5
Gravidity		
Nulligravid	21	45.7
Gravida 1	7	15.2
Gravida 2	7	15.2
Gravida 3	5	10.9
Gravida 4	3	6.5
Gravida 5	3	6.5
Marital status		
Married	24	52.2
Single	14	30.4
Widow	2	4.3
Divorced	5	10.9
Others	1	2.2

nancy with no consequences. Another patient was admitted in a hypovolemic shock consecutive to profuse bleeding. She sustained a laceration of the lateral vaginal wall.

During examination, no anatomic lesions could be identified in 16 (34.8%) patients. When a lesion was identified, it was located in the posterior fornix in 13 patients (28.3%) or in the lateral vaginal wall in five patients (10.9%). A total of six patients (13%) had multiple lesions at different anatomic locations.

Table 2 Clinical characteristics recorded in patients with a coital injury in Limbe Regional Hospital

Clinical characteristic	Number	Percentage
Period of abstinence		
Never had sex before	16	34.8
Less than 1 month	13	28.2
1–6 months	4	8.7
More than 6 months	7	15.3
Unknown	6	13.0
Main complaint		
Genital pain	39	84.8
Bleeding	31	67.4
Lower abdominal pain	18	39.1
Other	7	15.2
Anatomic location of lesion		
Posterior fornix	13	28.3
Lateral vaginal wall	5	10.9
Labia minora	3	6.5
Clitoris	2	4.3
Perineum	2	4.3
Posterior fourchette	1	2.2
Multiple	4	8.7
No identifiable lesion	16	34.8

The lesion was a laceration in all patients. It was combined with echymoses in four patients (13.4%).

Most patients with a laceration (n = 28) were treated by a simple suturing of the lesion. The suturing always used a polyglactin slowly absorbable suture. In 25 patients, the lesion was sutured in one single layer. The operation was performed either under local (n = 25) or general anesthesia (n = 3). The remaining cases were the ruptured ectopic pregnancy and the peritonitis that both required a laparotomy.

Inpatient admission was necessary in 13 patients (28.3% admission rate). Patients with a laceration of the posterior fornix were twice more likely to be admitted than the others ($P < 0.001$). A blood transfusion was necessary in three patients. No death was recorded.

Discussion

Obstetric lacerations remain the most frequent cause of injury to the female genital tract. However, nonobstetric injuries are gradually becoming a frequent cause of traumatic damage to the genital tract [3,4]. It has been reported that as much as 33% of these nonobstetric injuries are related to coitus [4]. These coital injuries have been estimated to represent as many as 1/1,000 gynecologic emergencies in an African setting similar to ours [1]. The true incidence of these injuries cannot be estimated owing to the high rate of underreporting. Some reports indicate that coital injuries are generally classified as minor injuries usually observed following “normal” sexual intercourse, especially in cases of first contact for the female partner. More extensive lesions are usually associated with diffuse bleeding which can be life-threatening [7].

Although rape and other forms of sexual violence are usually reported as the most frequent cause of coital injuries, it is now well established that they can also occur as a result of consensual sex [1,2,9,13]. According to Lincoln et al., a macroscopic lesion can be detected on examination of 10% of women up to 72 hours after a consensual sexual intercourse with vaginal penetration in the absence of any complaint [5].

Some reports seem to indicate that there is a difference in the pattern of injuries sustained between consensual and nonconsensual sexual activities [5,13]. Also, a number of predisposing factors such as vaginal infections, male to female disproportion, use of finger penetration, position

during coitus and long periods of abstinence have been reported [3,5,7,9,10].

Data on the clinical presentation and pattern of coital injuries are scarce. The number of studies reporting large number of cases is limited [3,10].

This report would have been more interesting if we were able to analyze factors previously reported as predisposing to the development of a coital injury. Also, the lack of follow-up data did not permit us to identify and analyze possible short- and long-term physical and psychological complications related to these special types of injuries, especially in the young female with an initial traumatizing sexual experience.

While most available studies concern the teenager injured during her first sexual intercourse, it generally appears that the young unmarried woman with a low parity is particularly vulnerable to this type of injury [2,3,10], especially if it is her first experience [14]. Patients as young as 13 years have been identified as victims of consensual sexual injury [8,11]. The proportion of patients sustaining this injury during the first sexual experience could be as high as 50% [8,11,12,14]. A period of abstinence of 3 months or more is also a frequent finding, especially in other African series [3,10]. The relatively young age of our injury victims and the high rate of injuries recorded during the first sexual intercourse seem to indicate the possibility of disproportion. It probably also reflects the impact of inexperience of both partners as a predisposing factor.

No in-depth analysis of cases of genital injury consecutive to illegal, but consensual sex have been described to the best of our knowledge. It could be speculated that the illicit nature of the sexual activity is associated to the "fear of being caught." The partners probably tend to hasten the intercourse and thus increase the likelihood of an injury.

Analysis of clinical presentation in all available reports indicates that bleeding is the most frequent presenting complaint. Our study seems to suggest that this bleeding could be life-threatening and must be attended to without delay in many cases [1,15,16]. Bhagat et al. reported a case of hemoperitoneum [11]. Peritonitis as a consequence of coital injury is an extremely rare condition [17], which indicates delay in reporting, usually because it occurs in situations of illicit sex.

The posterior vaginal fornix is well known as a vulnerable anatomic site for coital injuries in both consensual and nonconsensual sex [3,8,10,14,15,18]. This location also supports the idea of sexual disproportion for obvious anatomic

reasons. Other locations such as clitoris, fourchette and labia minora have also been described [8]. However, lacerations of the lateral vaginal wall often observed in our patients are not a frequent finding in available reports [3,4,10].

While laceration is the lesion described in most available reports, other lesions such as echymoses and abrasions have also been discussed [2,5,8]. Extreme situations like a fourth-degree recto-vagino-perineal tear have also been reported [19]. It is likely that abrasion was not reported in our series because the gynecologists who examined patients did not specifically search for it.

Generally, vaginal lacerations consecutive to coitus are benign and can be simply sutured under local anesthesia with control of the hemorrhage and no mortality [3,6,10]. Cisse et al. achieved complete healing in 8–15 days [10]. Reported morbidity includes recurrence and dyspareunia.

Conclusions

Vaginal injuries consecutive to consensual coitus are relatively frequent in our practice. It usually manifests as a vaginal bleeding, often life-threatening. Our report highlights some special presentations such as peritonitis. The typical victim of injury during consensual coitus in our context is the young unmarried woman, often a virgin. Low parity and abstinence for months seem to be predisposing factors. Most patients can be properly treated by suturing of the laceration under local anesthesia with no mortality.

Future reports would best include the analysis of previously reported risk factors and their contribution to the risk of developing an injury during consensual sex. It would also be interesting to study the short- and long-term physical and psychological impact on victims of such injuries, especially in the teenager who start their sexual life with such a traumatizing experience.

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