ORIGINAL RESEARCH—ERECTILE DYSFUNCTION

Penile Fracture Seems More Likely During Sex Under Stressful Situations

Andrew C. Kramer, MD

Department of Surgery, University of Maryland School of Medicine, Baltimore, MD, USA

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ABSTRACT

Introduction. The unusual event of penile fracture occurs when there is a disruption of the tunica albuginea surrounding engorged erectile tissue during aggressive sexual behavior. There is often an audible crack and rapid detumescence with subcutaneous hemorrhage that follows.

Aims. Medical literature has described the etiology and treatment of penile fracture. We report the remarkably unusual social situations of a series of patients who sustained this unique injury.

Methods. We conducted a retrospective chart review of 16 patients whose injury was severe enough to require surgical repair at the University of Maryland between 2007 and 2011. Particular attention was paid to the intake interview in the emergency department and the postoperative chart notes by the attending urologist to ascertain out-of-the-ordinary social situations in which the injury was sustained.

Main Outcome Measures. The occurrence of penile fracture is sufficiently rare that the author was able to interact personally with most of the patients. The patients were remarkably forthcoming with the personal social dynamics of the sexual encounter.

Results. Half of these penile fracture patients sustained the injury during an extramarital affair. Only three patients sustained the injury in a bedroom; the remainder was in out-of-the-ordinary locations for sexual intercourse, e.g., cars, elevator, the workplace, and public restrooms.

Conclusions. Penile fracture patients appear to be a unique population of men who are having sexual intercourse under stressful situations. Extramarital affairs and out-of-the-ordinary locations appear common in patients sustaining this relatively rare injury. **Kramer AC. Penile fracture seems more likely during sex under stressful situations. J Sex Med 2011;8:3414–3417.**

Key Words. Penile Fracture; Sexual Trauma; Rupture of Tunica; Extramarital Affairs

Introduction

Penile fracture occurs when the erect penis sustains trauma. Usually the history is of an individual having a forceful bending of the penis during aggressive sexual intercourse featuring unusual sexual positions [1,2]. The fracture is often heralded by an audible crack followed by rapid detumescence, severe pain, subcutaneous swelling, and hemorrhage. The tunica albuginea is ruptured or torn during the bending or buckling of the penis and must be repaired surgically or erectile dysfunction may result [3–5]. The injury is rare with a low and possibly underreported occurrence [6].

Research has been done concerning the mechanism [7,8] and surgical treatment algorithm [9–12] but no reports have delved into the social dynamics surrounding penile fracture. The author has long observed that patients presenting with penile fracture often have an unusual set of social circumstances as the milieu in which the sexual intercourse occurred. We compile data from 16 patients who sustained penile fracture to illustrate this opinion.

Table 1 Demographic and clinical characteristics

Age, mean	43.7
Race	
White N (%)	8 (50)
Black N (%)	8 (50)
Relationship status	
Single, N (%)	6 (37.5)
Married, N (%)	10 (62.5)
Sexual orientation, straight N (%)	16 (100)
Intercourse preceded injury N (%)	14 (87.5)
Sex occurred in an atypical scenario	11 (68.7)
Incident during extramarital affair	7 (43.8)
Sex was not in a bed	6 (37.5)
Sex was in an elevator	1 (6.3)
Sex was while at work	3 (18.8)
Sex was in a public bathroom	2 (12.9)
Sex was in an automobile	2 (12.9)

Methods and Materials

Data was collected by retrospective review of patients who underwent surgery at the University of Maryland Hospital with a diagnosis of penile fracture. Sixteen patients were identified between June 2004 and May 2011. The chart was examined with particular attention to the intake interview in the emergency department and the attending urologist chart notes. Often the attending urologist was the author. Demographic data and patient behavior before and during the traumatic event was catalogued. Table 1 notes demographic data and the out-of-the-ordinary locations of the sexual event. Table 2 describes each individual patient in more detail. All of these patients presented within 12 hours of the traumatic event. Two patients are illustrative of the unique social history of these patients.

Clinical Case 1: A married 41-year-old man was out with coworkers at an after-work cocktail party. There he met a woman, and the two decided they wanted to have sexual relations. They left together in one car, but in the parking lot decided they should not drive because of consumption of alcohol. They had sexual relations in the back seat of the car until the man felt a "pop" in his penis with rapid detumescence. He presented to the emergency department with a penile fracture.

Clinical Case 2: An unmarried man has been romantically involved with a coworker for 6 months. He reports that this has been largely hidden from work colleagues. He reported that they often met for sexual liaisons within different parts of their office building. On one such occasion they were having sex within a locked bathroom after work hours. He also presented with a penile fracture.

Results

Careful history taking of the environment and social dynamics of 16 patients sustaining penile fracture revealed the majority had what could be described as unusual circumstances surrounding their sexual trauma. Two patients steadfastly

Table 2 Patient characteristics

Patient 1
- Married, denies sexual trauma

Patient 2
- Married, denies sexual trauma

Patient 3
- Sexual trauma
- Unmarried
- Sex at work (1/3)

Patient 4
- Sexual trauma
- Married
- Extramarital affair (1/7) in public restroom (1/2)

Patient 5
- Sexual trauma
- Unmarried
- Sex at work (2/3) in an elevator (1/1)

Patient 6
- Sexual trauma
- Married
- Extramarital affair (2/7)

Patient 7
- Sexual trauma
- Unmarried
- Sex in an automobile (1/2)

Patient 8
- Sexual trauma
- Unmarried

Patient 9
- Sexual trauma
- Unmarried

Patient 10
- Sexual trauma
- Married
- Extramarital affair (3/7)
- Sex in an automobile (2/2)

Patient 11
- Sexual trauma
- Married
- Extramarital affair (4/7)
- Sex in an office (1/1) and at work (2/3)

Patient 12
- Sexual trauma
- Married
- Extramarital affair (5/7) and in a bathroom (2/2)

Patient 13
- Sexual trauma
- Unmarried
- Sex at work (3/3)

Patient 14
- Sexual trauma
- Married
- Extramarital affair (6/7)

Patient 15
- Sexual trauma
- Married
- Extramarital affair (7/7)

Patient 16
- Sexual trauma
- Married

claimed the penile fracture did not occur as a result of sexual trauma. Fourteen of the patients admitted to a history of sudden fracture with an audible "pop" during sexual intercourse accompanied by rapid detumescence, pain, and swelling.

The most common unconventional scenario (50%) was a married man having sexual relations outside his marriage. As would perhaps be expected, many of these extramarital affairs occurred in unusual settings. Regardless of whether the sex was with his marital partner or not, the majority of patients sustaining penile fracture were having relations in atypical places. Only three of these patients were having relations with their own spouse in their own bedroom. The remaining 11 had sex in stressful situations, see Table 1. Six of the patients had sex outside of a bed and unusual locations dominated the penile fracture population: in the workplace (three), automobiles (two), public restrooms (two), and elevator (one).

Discussion

Of the men examined in this study, a large number gave candid histories regarding the events surrounding their penile fractures. Only two of the 16 would not admit a history of sexual trauma. These cases of "immaculate fracture" probably represent similar out-of-the-ordinary sexual activity prompting denial on the part of the patient to avoid disclosure to his partner.

The remainder of the patients were remarkably candid in their description of the environment surrounding their sexual trauma. This can be explained by possible vulnerability of the patient with this injury upon presentation to the emergency department and to the admitted interest in this subject by the author. The association of out-of-the-ordinary and stressful milieu for the sexual act means the sexual encounter was probably passionate, rushed, and aggressive. The unusual locations for the sexual act such as elevator and public restrooms could indicate awkwardness, unusual sexual positions, and hurried behavior. Extramarital affairs, sex with office coworkers, and the varied settings illustrate the covert nature of the sexual encounter leading to penile fracture. All these factors could make the man less able to protect his penis from an unexpected sudden downward thrust leading to the fracture.

A parallel to our conclusion that penile fracture is more likely to occur in stressful situations can be found in the incidence of the so-called "death by orgasm" occurring in a male cardiac patient. Jackson et al. found that sex with a regular partner for a cardiac patient must be distinguished from the more risky (cardiac-wise) extramarital sex. The latter involves a much greater cardiac workload because the partner is "usually younger with different activities and expectations" [13,14].

A criticism of this article is that we have no analysis of the particular sexual position involved in the fracture. The female superior position is thought to be the usual etiology of the penile trauma [12]. In only five were the sexual position recorded in our charts and of these 100% were female superior.

Future research may be focused on continuing to understand patients' sexual attitudes and behavior [15]. It is tempting to believe the incidence of penile fracture is higher than reported because, as shown in this study, the circumstances surrounding the fracture are embarrassing to the patient. This is unfortunate because long-term results with surgical repair are excellent [16–18]. Identifying the injury early and treating it properly may spare some patients the future morbidities of Peyronie's disease and erectile dysfunction [19].

Conclusion

Penile fracture appears to occur in a unique population of patients. Extramarital affairs, sexual relations in unusual locations outside of the bedroom characterize the majority of patients in this study. This stressful sexual milieu must increase the chances of penile fracture.

Corresponding Author: Andrew C. Kramer, MD, Department of Surgery, University of Maryland School of Medicine, 29 S. Greene St, Suite 500, Baltimore, MD 21201, USA. Tel: (410) 328-6087; Fax: (410) 328-0595; E-mail: akramer@smail.umaryland.edu

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Statement of Authorship

Category 1

(a) Conception and Design
Andrew C. Kramer

(b) Acquisition of Data
Andrew C. Kramer

(c) Analysis and Interpretation of Data
Andrew C. Kramer

Category 2

(a) Drafting the Article
Andrew C. Kramer

(b) Revising It for Intellectual Content
Andrew C. Kramer

Category 3

(a) Final Approval of the Completed Article

Andrew C. Kramer

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