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Fracture of the Penis about 2 Cases and Review of the Literature

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Abstract

Little discussed, fracture of the penis is a painful and traumatic accident due to a too fast or too brutal displacement of an erect penis. The management of fractures of the penis in our context remains a rare practice and sometimes even unknown in its anatomopathological entities. We report here, 2 cases of fracture of the penis with rupture of the corpora cavernosa and the albuginea.

Keywords: Fracture of the penis; Rupture of the albuginea of the corpus cavernosum

Introduction

Described for the first time in 1925, the fracture of the penis is a rare pathology caused by an intra-cavernous hyper pressure of an erect penis [1]. Because of the patient's discomfort, the actual circumstances of its emergence are sometimes difficult to clarify. The incidence of this pathology seems to increase.

We report here two clinical cases of classic fracture of the penis in a 42-year-old divorced patient who attended a surgical treatment.

Case Series

Clinical case 1

This was a 42-year-old divorced patient with no previous pathological history, admitted for a painful swelling of the penis due to a trauma. The trauma would have occurred during sexual activity in the Andromache position. The patient would have heard a painful cracking followed by a spontaneous detumescence of the penis, forcing the involuntary interruption of the sexual act. The secondary occurrence of a swelling of the penis getting more and more significant (Figure 1) would have led the patient to consult the surgical emergency room of the CHU-SO for a management 6 h after the trauma.

The clinical examination at admission noted a patient in good general condition, a good hemodynamic state, a swelling of the entire penis giving the appearance of what is commonly called an eggplant penis, without any sign of rolling or palpation of a defect but with clear urine. The examination of the perineum was normal.

The patient was taken urgently to the operating room. Under spinal anesthesia, after bladder sounding, a subcoronal incision with uncovering of the penis shaft is done and showed a transverse

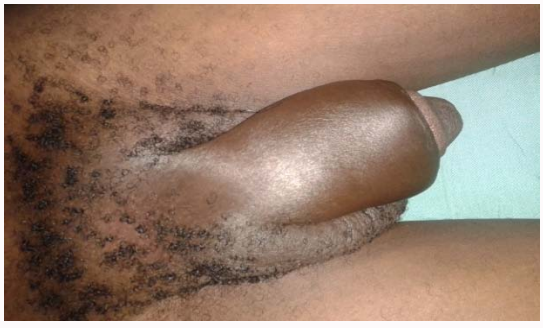

Figure 1: Eggplant appearance of the fractured penis in the first case.

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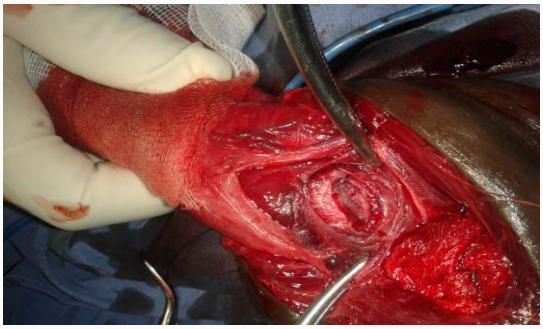

Figure 2: Fracture line reaching the corpus cavernosum and the albuginea.

line fracture posterior around 1 cm of the albuginea and the right corpora cavernosa without affecting the urethra (Figure 1). The hematoma was drained and hemostasis was performed by electric scalpel with suture of the albuginea using 4/0 absorbable thread. The erection test performed to ensure that the corpus cavernosum was impermeable and that the penis was free of any distort was satisfactory. The patient was put on benzodiazepine and cyproterone acetate for one month to prevent erection. The postoperative course was simple and the patient was reviewed one, three and six months after the intervention with a normal return to sexual activity, without deviation of the erect penis. The follow-up at 12 months was without any particularity.

Clinical case 2

This was a 41-year-old married patient, a mechanic with no previous pathological history, admitted for a painful swelling of the penis following a trauma. The trauma would have occurred during a sexual act in the missionary position. The patient would have heard a painful cracking sound during ejaculation followed by a spontaneous detumescence of the penis, forcing the involuntary interruption of the sexual act. The secondary occurrence of a swelling of the penis getting more and more significant would have led the patient to consult the surgical emergency room of the CHU-SO for a management 9 h after the trauma. The clinical examination at admission noted a patient in good general condition, a good hemodynamic state, a swelling of the entire penis giving the appearance of what is commonly called an eggplant penis, without any sign of rolling or palpation of a defect but with clear urine. The examination of the perineum was normal.

The patient was taken urgently to the operating room. Under local anesthesia, after bladder sounding, a subcoronal incision with undressing of the penis shaft is done and showed a transverse line fracture anterior around 1 cm of the albuginea and the right corpora cavernosa without affecting the urethra. The hematoma was evacuated and the albuginea was sutured with 4/0 absorbable thread. The erection test performed to ensure that the corpus cavernosum was impermeable and that the penis was free of any distort was satisfactory. The patient was put on benzodiazepine and cyproterone acetate for one month to prevent erection. The postoperative course was simple and the patient was reviewed one, three and six months after the intervention with a normal return to sexual activity, without deviation of the erect penis. The follow-up at 12 months was without any particularity.

Discussion

A rare pathology, only 185 cases of fracture of the penis had been reported in the literature up to 1985 [2]. In 1991, Mansi counted 235 [3] and in 1998, Mydlo counted 250 [4] in the Anglo-Saxon literature. The incidence of this pathology seems to be increasing, as from 1935 to 2001, 1,642 cases were described, and this could be explained by the increasingly effective treatment of erectile dysfunction [5]. It is a disorder that frequently occurs among young people, at age when sexual activity is more vigorous and more frequent according to Ishikawa, with 81% of patients between the ages of 20 and 50 [6]. For the record, 73% of male victims of this accident are not married [7]. Of our two patients, both young, one was divorced.

The exact circumstances of the occurrence of a fracture of the penis are difficult to specify because of the patient's embarrassment. But the causes are, among others, intense vigorous sexual intercourse [6], the erect penis comes up against the pubic symphysis of the partner when it slides out of the vagina [8], we speak of the "False step of coitus". Coitus in the vertical position can also lead to a rupture when the partner falls suddenly, causing a sudden curvature of the penis [9]. In these cases, the Andromache position is responsible for 50% of the fractures, compared with 29% for doggy style and 21% for the missionary position. Fractures can also occur during sexual games [5] or during manipulation of the penis to stop the morning erection [5]. Other anecdotal causes have been reported, including a penis stuck in a car door [10]. Some risk factors can be found such as loss of elasticity of the albuginea by gonococcal urethritis or fibrosclerosis of the albuginea [11]. The fracture in our patients occurred in the Andromache position in one and in the missionary position in the other, in the absence of any favorable factor, with an admission time of 6 h and 9 h respectively. The average delay of consultation was 3.5 h for Muentener [12]. The fracture of the penis in our patients led to a cessation of sexual intercourse, but the continuation of the act until completion despite the existence of the fracture has been described [1] and almost always without damage to the albuginea. This entity is still not well known.

The appearance of the eggplant-shaped penis (Figure 1) was seen in our two patients as in any classic fracture of the penis with rupture of the albuginea, in contrast with the closed fracture of the penis without rupture of the albuginea [1]. The perception of cracking with the sudden loss of erection and the occurrence of hematoma are pathognomonic for classical fracture of the penis with rupture of the albuginea of the corpora cavernosa as found in our two patients. The absence of a palpable defect and the presence of the rolling sign in both would be due to the size of the hematoma [1]. Indeed, the smaller the hematoma is, the easier the rolling sign and the perception of the deficiency are. The examination of the perineum was normal in our two patients, suggesting an absence of urethral involvement.

No radiological assessment was performed in the management of our two patients because it was not available in emergency. However, given the limitations of some and the real indications of others, the prescription of these imaging tests only prolongs the delay in surgical management [13].

There are two types of fractures of the penis: isolated closed fractures of the corpus cavernosum and classic fractures with rupture of the corpus cavernosum associated with a rupture of the albuginea [1]. One or the other may or may not be associated with urethral injury. In our patient, it was a fracture of the penis with rupture of the corpus cavernosum and the albuginea without damage to the urethra (Figure 2).

From a therapeutic point of view, the treatment of penis fractures with damage to the albuginea is well documented: Surgical treatment

remains the standard and consists in evacuation of the hematoma, hemostasis and suture of the albuginea. Our two patients benefited from surgical treatment with simple postoperative courses.

Conclusion

Fracture of the penis is still a rare pathology in our daily practice. Concomitant damage to the corpus cavernosum and the albuginea is easy to diagnose, paraclinical tests should not delay the treatment which should be rapid.

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