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Fracture of Verge in Young Subject: About Two Cases at the Regional University Hospital Center of Ouahigouya (Chur-O)

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1. Abstract

Verge fracture is a rare pathology defined by a rupture of the albuginea of the corpora cavernosa. We report two cases of penis fracture clinically diagnosed and surgically managed by albuginorrhaphy at the Centre Hospitalier Universitaire Régional de Ouahigouya in Burkina Faso. The prognosis was good in both cases, with resumption of sexual activity 3 months after surgery.

2. Introduction

The penis is the male organ of copulation and micturition. This dual function is performed by two erectile organs: the corpora cavernosa, surrounded by envelopes, and the urethra. These two erectile bodies ensure the rigidity of the penis and can be the site of a fracture [1]. This fracture occurs when the albuginea of the corpus cavernosum is ruptured by trauma of the erect penis [2]. It is a rare condition in young people, with a poorly estimated incidence. Diagnosis is usually clinical. It is evoked by a painful swelling of the penis that occurs after a cracking sensation followed by detumescence on an erect penis. Treatment is usually surgical. We report two cases of penis fracture diagnosed and managed at Ouahigouya Regional University Hospital, with a good prognosis.

3. Observation

3.1. Patient 1

The patient, a 38-year-old cattle breeder living in the northern region of Burkina Faso, was admitted to the CHUR-O surgical emergency department for a painful swelling of the penis. The mechanism of onset was trauma to his morning erect penis by the edge of his bed. This was followed by a cracking sound and detumescence. The evolution was marked in the two hours that followed by a progressive increase in the volume of the penis, very painful which motivated a consultation in a health and social promotion center from where he was referred to the CHUR-O for better care. Questioning revealed no urinary symptoms. Clinical examination revealed a swollen penis, with a painful depression located on the dorsal surface of the penis opposite the left corpora cavernosa. The clinical diagnosis of a fractured penis was made, and the patient underwent albuginorrhaphy. No further investigations were necessary. We saw the patient at 3 months, 6 months and one year postoperatively, with a good functional prognosis. A resumption of sexual activity without any particular problems.

3.2. Patient 2

The patient, 29-year-old golg digger living in Ouahigouya, received with painful swelling of the penis following coitus. The mechanism of onset was thought to be following sexual intercourse. During sexual intercourse, the patient would feel a cracking sensation followed by detumescence, edema and pain of the penis. He waited for an hour, thinking that the symptomatology would subside, but as the signs persisted, the patient decided to consult the CHUR-O directly for better management. Examination revealed a swollen, painful penis with more marked pain in the left corpus cavernosum. The clinical diagnosis of a fractured penis was made, and the patient was treated surgically at H3 post trauma. After an incision in the balanopreputial groove, the penis was deboned, and the fracture site located of the left corpora cavernosa. The urethra was intact. After insertion of a urinary catheter, we proceeded to evacuation of the hematoma, suturing of the corpus cavernosum with 3/0 Vicryl in separate skin suture and dressing (Figures 1-6).

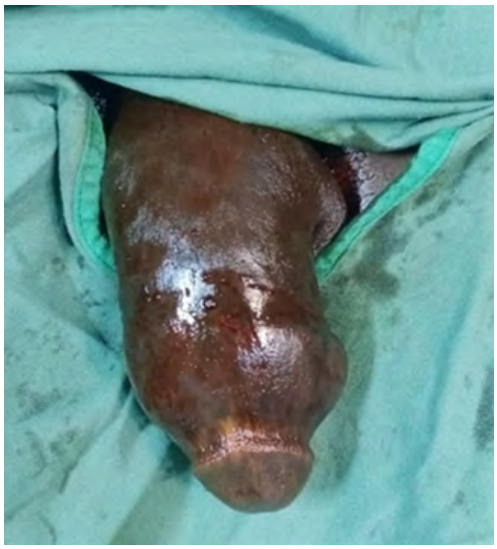

Figure 1: Preoperative swollen appearance of the penis
Source: Urology and Andrology Department, of CHUR-O.

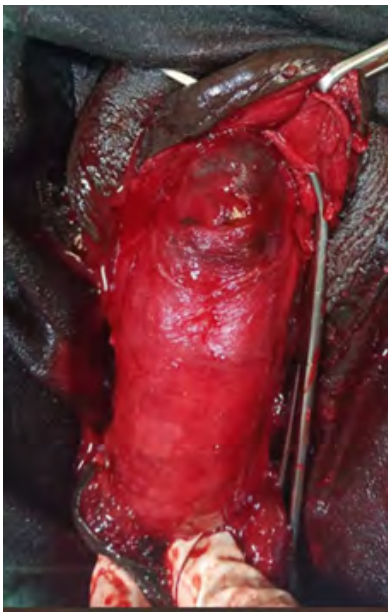

Figure 2: intraoperative aspect, hematoma based at the root of the penis on the left cavernous body.
Source: urology-andrology department of CHUR-O

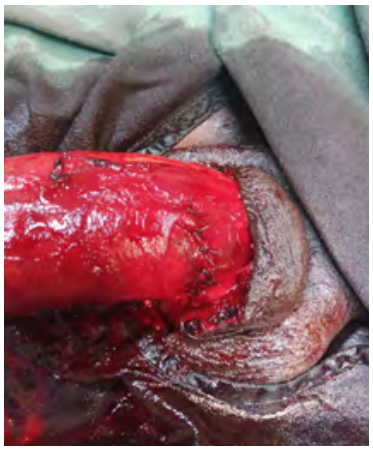

Figure 3: Intraoperative appearance after evacuation of the hematoma and albuginea suture.
Source: Urology andrology department, CHUR-O.

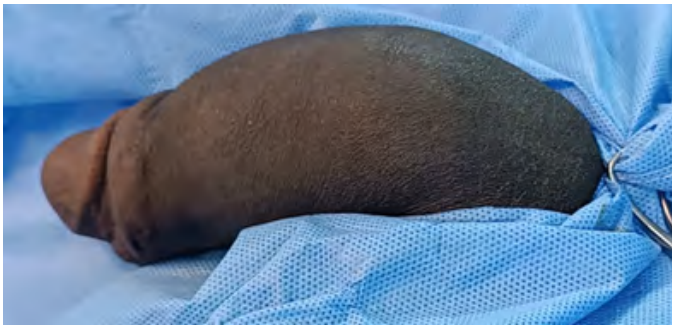

Figure 4: Preoperative appearance of the penis
Source: CHUR-O urology-andrology department.

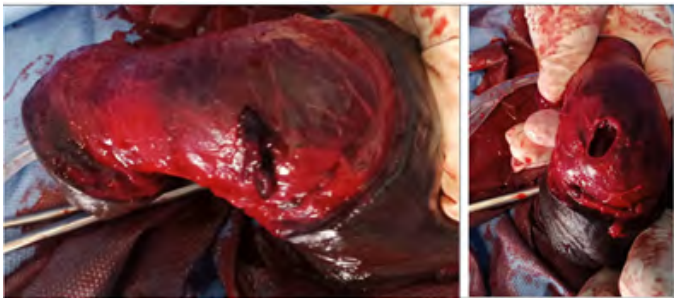

Figure 5: Enlarged hematoma of the left cavernous cortex cavernous corsp with a rupture point blood clots which were evacuated, creating a crater.
Source: CHUR-O urology-andrology department.

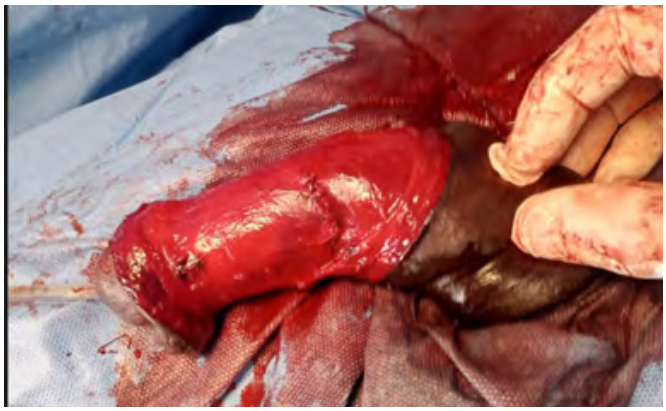

Figure 6: Appearance after albuginea suture.
Source: CHUR-O Department of Urology and Andrology.

4. Discussion

First described in 1925 [1], penile fracture is defined as a fissure of the tunica albuginea of the corpora cavernosa following trauma to the erect penis [2]. It is a rare pathology. Few cases have been found in Burkina Faso. In Bobo Dioulasso, a study by Paré et al found 6 cases in 5 years [4]. There are no notified cases or written reports of this pathology at CHUR-O. This may be explained by the fact that many patients are unaware of the existence of this pathology, and also that the embarrassment about it prevents them from coming to hospital. On the other hand, certain socio-cultural considerations regard this pathology as mystical, launched by a third party [3].

Verge fracture is a pathology that generally occurs in young people. The ages of the patients treated ranged from 29 to 38 years.

The average age of patients managed by Paré et al was 38.3 years, with extremes of 30 and 43 years [4]. The same trend was found in Mali, Senegal, Togo, Gabon and France [3, 5, 6, 7, 8, 11]. This could be due to the fact that in this group, sexual activity is higher and takes place with a certain vivacity.

This is a pathology that causes a certain amount of discomfort for the patient, sometimes making it impossible to pinpoint the exact circumstances in which corpora cavernosa rupture occurs [1]. There are various mechanisms of occurrence, the most frequent of which is the coital faux pas, during which the erect penis slips out of the vagina and collides with the perineum, upper thigh or pubic symphysis. We found two circumstances of occurrence: a false step in coitus and a case of trauma by the edge of the bed. In Western countries, the most frequent cause (30-50% of cases) is violent vaginal or anal intercourse, while in the Middle East, the most common causes are manipulation of the penis to stop the morning erection, and masturbation [1].

Diagnosis of a fractured penis is fairly straightforward in its typical form. Questioning reveals a painful crack followed by detumescence of the erect penis. The patient may report urethrorrhagia if there is associated urethral damage. Clinical examination reveals a painful swelling of the penis with an eggplant appearance, and palpation reveals an exquisite point of pain at the site of the fracture [2]. The diagnosis of penile fracture is so obvious that doubt may arise only in cases of neglected fracture or rupture of the deep dorsal vein, which is also observed in blunt trauma to the erect penis, usually during sexual activity. In both our cases, the diagnosis was made clinically and confirmed intraoperatively. No paraclinical examinations were necessary. However, examinations can be used to confirm a suspected penile fracture with or without associated urethral involvement. They can highlight the site of tunic rupture, guiding the surgical approach [2]. Cavernosography is the diagnostic test for penile fracture. It involves injecting 50ml of a water-soluble contrast medium into the corpus cavernosum under radiographic control. The location of any extravasation of contrast medium indicate the site of tunica rupture. Ultrasound may be of interest if a focal approach is desired. Two cases of closed fracture, without rupture of the albuginea, a still poorly understood entity, have been reported by M. Wisard et al. Diagnosed by echodoppler, which revealed hypoechoic areas compatible with a fibrotic process, with no arterial or venous anomalies [11]. Penile MRI, if available, is anatomically accurate, showing the site of the fracture, the extent of the rupture and associated lesions. These examinations may reveal a fracture with or without albuginea rupture. Both cases were treated surgically. Corpus cavernosum rupture was unilateral, as in many studies [3,4,5], but bilateral cases have been reported [2]. The rupture involved the left corpora cavernosa with no obvious explanation. In both cases, we proceeded to complete disengagement of the penis, exposing the fracture, followed by evacuation of the hematoma with albuginorrhaphy in separate stitches using 3/0 vicryl. Skin suture and dressing. Postoperative care included antibiotics, analgesics, tranquilizers and fluids. Patients were discharged on postoperative day 5. No urethral involvement was observed, as has been the case in some observations [3,8,12]. The evolution was favourable, with resumption of sexual activity three months after each operation in patients who were impatient. Both had IIEF6 scores between 26-30. In most studies, penile fracture had a satisfactory prognosis [3,4,5,6,7,8,9]. Moderate to mild erectile dysfunction was successfully managed with phosphodiesterase 5 [5,7,12]. Cases of fibrosis of the corpora cavernosa have been reported [6,11,12].

5. Conclusion

Penile fracture is a rare pathology usually occurring in young people. It is an andrological and sometimes urinary emergency that can affect the functional and mictional prognosis of the penis. Proper management can restore the anatomy of the penis and ensure a good prognosis.

6. Conflits of Interest

The authors declare no conflits of interest.

References

1. Paparel P, Ruffion A. Corpus cavernosum rupture: technical aspects of management. EMC (Elsevier SAS, Paris), surgical techniques-Urology. 2006; 41-479.
2. Schill WB, Comhaire FH, Hargreare TB, W.D. Aiken penile fractures. Treatise on andrology for clinicians. 2001; 193-195.
3. Ongoiba O, Sanogo S, Tounkara I, Kassogué D, Mariko S, Boré B, et al. Verge frature: report of two observations and review of the literature. Health Sci. Dis. 2023; 24(7): 147-150.
4. Paré AK, Ouattara A, Botcho G, Kirakoya B, Kaboré FA. Verge fracture: about six observations at the Sanou Sourou University Hospital in Bobo-Dioulasso, Burkina Faso. The Pan African Medical Journal. 2019; 33: 257.
5. A Sarr. Verge fracture in a Senegalese hospital environment. Jaccr Africa. 2020; 4(4): 93-98.
6. Kpatcha TM. Our experience in the management of penis fractures at Lome University Hospital. African Journal of Urology. 2017; 23: 342-346.
7. Adrien M, Smith GO, Steevy NNM, Grace CO, Dimitri M, Jean MM, et al. Ondo N'dong François. Epidemiology, treatment and sexual functional prognosis of verge fractures at the CHU of Libreville. Health Sci. Dis. 2022; 23(4): 12-15.
8. Natchagandé G, Avakoudjo JDG, Gandaho KI, Hounnasso PP. Verge fracture at the Cotonou university urology clinic. Black African Medecine 6009-August/Septembre. 2013-368-372.
9. Ibrahim A, Ziani I. Fracture of the corpora cavernosa of the penis. Pan Journal Medical Journal. 2020; 37: 272.
10. Diallo Y. Penis fracture: results of treatment in the Thies region. Africain Journal of Surgery 2014; 3(2): 80-84.

11. Wisard M, Aymon D, Meuwly JY, Jichlinski P, Praz V. Closed" fractures of the penis: report of two cases. Progress in urology. 2008; 18: 617-619.
12. Ndiaye M, Jalloh M, Ndoye M, Niang L, Faye ST, Sangaré T, et al. Verge fracture at Grand Yoff General Hospital: epidemiological, diagnostic and therapeutic aspects. Uro'Andro-volume1 N°8 July 2017.