

FRACTURE OF THE PENIS ABOUT 06 CASES EXPERIENCE OF THE UROLOGY DEPARTMENT OF THE MOHAMMED V RABAT MILITARY TRAINING HOSPITAL

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SUMMARY

Purpose: To determine the clinical and therapeutic epidemiological aspects of penis fractures at the Mohammed V Rabat military training hospital. **Patients and Methods:** This is a retrospective and descriptive study extended over a period of 04 years from 06/2020 to 06/2024 thus bringing together 06 patients in the urology department of HMIMVR. **Results:** We report 06 fractures of the penis collected over a period of 04 years. The causal trauma was the fault of coitus 05 cases, 73.33% followed by forced manipulation of the penis in erections 01 Cases or 16.66%. The site of the lesion was: left corpus cavernosum 02 cases or 33.33%. Bilateral and proximal involvement classified grade 3, numbering 04, i.e. 66; 66%. The average

consultation time after the trauma was 7 days and 2 hours: 30 minutes with extremes of 5 hours and 15 days. The duration of hospitalization was on average 14 hours with extremes of 12 hours and 24 hours. The postoperative result was favorable in 05 patients or 83.66% and only one complication. **Conclusion:** Penile fracture is a rare but not exceptional uroandrological emergency. Its treatment must be urgent, the prognosis of which is by repairing (Functions: Erectile and Urinating) in case of grade 4 (Damage to the urethra) this lesion is taken at the same operating time.

KEYWORDS: Penis, Corpus cavernosum, Corpus spongiosum, Penis fracture, Detumescence, Urethrorrhagia, Erection.

INTRODUCTION

Fracture of the penis is a uro-andrological emergency which occurs in the majority of cases

on an erect penis (*thickness of the albuginea at rest = 3mm, when erect the thickness decreases to 0.25 -0.50mm*); this variation leads to a drop in resistance within the albuginea in the face of sudden overpressure events leading to its rupture.

The most frequently reported etiology remains coitus faux pas among many others.

Its diagnosis is clinical and based on a set of arguments collected during the well-conducted interrogation and physical examination (Crunching, detumescence, hematoma, pain at the end realizing the typical appearance of eggplant), the occurrence of hematuria requires looking for urethral damage.

Completed secondarily by an ultrasound as a first intention given the availability in the emergency room, then MRI, cavernography according to the authors.

Treatment should be as early as possible to overcome postoperative complications.

It is based on surgery by making either a coronal incision where the risk is skin necrosis or an elective incision where the risk is not even certain lesions.

In the light of the data collected through the literature, our series aims to analyze the epidemiological, diagnostic, therapeutic, evolution and postoperative follow-up aspects in a retrospective study at HMIMV Rabat over a period of three years about six (06) case.

MATERIALS AND METHODS

A retrospective, descriptive study extended over 04 years was carried out between 2020-06/2023 at the Mohammed V Military Instruction Hospital Rabat Urology Department.

Patients who presented with a penile fracture were included.

The operating bases were the department's hospitalization register, the emergency room report register, and medical files.

The parameters studied were age, circumstance of occurrence, reason for consultation, mechanism occurring, physical examination data, time to treatment, treatment instituted, post-operative outcomes and sexual function after treatment. For all numerical variables an average was calculated and the extremes defined. A total of 06 patients were retained at the end of this investigation.

RESULTS

At the end of our investigation, 6 patients were included.

Table no. 1: Distribution of patients according to age N=06.

<i>Age groups years</i>	<i>Number</i>	<i>Frequency %</i>
20 to 29	O1	16.66
30 to 39	O1	16.66
40 to 49	O2	33.33
50 to 59	O1	16.66
60 to 69	O1	16.66

The most represented age group is: 40 to 49

Table No. 2: Distribution of patients according to the mechanism of occurrence N=06.

<i>Mechanisms</i>	<i>Number</i>	<i>Frequency %</i>
Citation faux pas	O5	73.33
Forced handling	O1	16.66

The faux pas de coite is more represented in our series

Table No. 3: Distribution of patients according to topography and anatomical site of the lesion N=06.

<i>Corpora cavernosa/plain or bilateral</i>	<i>Number</i>	<i>Frequency %</i>
Body C left and lateral	02	66.66
Bilateral proximal and dorsal	04	33.33
Total	06	100%

The involvement of the left corpus cavernosum is more marked in our series 06 cases out of 06 with bilaterality in 04 cases or 66.66%.

Table No. 4: Distribution of patients according to time between fracture and emergency consultation N=06.

<i>Duration in hours</i>	<i>Number</i>	<i>Frequency %</i>
5 hours	02	33.33
7 hours	01	16.66
8 hours	01	16.66
27 Hours	01	16.66
315 Hours (15 days)	01	16.66
Total	06	100 %

The delay is 05 hours in two of our patients

The maximum delay is 15 days for a single patient

Table No. 5: Distribution of patients according to length of hospitalization N=06.

Length of hospitalization in hours	Number	Frequency %
24 hours	01	16.66
12 hours	05	83.33
Total	06	100%

The duration of hospitalization is 12 hours for 05 patients

24 hours for a patient due to the delay before the consultation approximately 15 DAYS

Table n. 6: Distribution of patients according to post-operative result N=06.

Results	Number	Frequency
Good result	05	83.66%
Bad results	01	16.34%
TOTAL	06	100%

During this study, only one complication was diagnosed postoperatively on day 30 marked by a curvature of the penis.

According to the Clavien and Dindo complication concerning the mode of hospitalization, the duration of hospitalization, the mode of discharge of patients and reviews of patients on day 15, day 30 at 03 months and at 6 months at the consultation, we noted a only complication (A curvature of the penis).

There was no ED, urinary or infectious complications.

DISCUSSION

The fracture of the penis, was observed for more than 1000 years by Abul Kassem in coudoue, it was written for the first time in 1925(16).

A- Epidemiology

a- Morocco's place globally - age

This is a rare pathology of young adults, for Eker, this is explained by a great vigor of sexual relations at this age (21).

A distribution around the world allowed us to retain this

Morocco in third position 226 cases until 2001 behind Iran in second 240 cases, and the countries of North America in the lead 250 cases (USA and Canada).

The Nouri series in Morocco reports 56 cases in 08 years, then the last largest Moroccan

series published in 2010 in Marrakech also reports 56 cases in 7 years by DR Saïd ARZA.

In our series, among the 06 patients the most represented age group is 40-49 or 33.33%.

All these series report a predominance of young adults despite an etiological divergence.

In our series the average age of discovery is 32 years.

Yapanoglu (35) reported in 2009 in Turkey an average age of 35.5 years in a population of 42 patients Zargooshi in Iran (22) in 2000, the average age is 26 years in a population of 172 PATIENTS Koudar (20) in the USA in 2008, an average age of 39 years in a population of 08 patients.

b- Martial status

In our series, 66.67% are not married and 33.33 % are married and thus joins the data in the literature and that reported in the series by DR said (21) in Marchach in 2010 by reporting that 83% n is not married and 17% married.

This high frequency is explained by the fact of inexperience and the increase in vigor among young people.

c- Etiologies

Among the etiologies retained in the literature which could be at the origin of fractures of the corpus cavernosum, two were retained in our series, namely false coitus 83 % and forced manipulation of the erect penis 16.66%.

Our series is divergent compared to the series of DR Saïd (21) and Nouri (12) who respectively report 66.1% and 66% of forced manipulation and coitus faux pas 8% and 7.1% Zargooshi in his series reports 78.3 % forced manipulation and 7.9% on a population of 352 patients in.

Margaris (34) IN 2008 in Greece reported on a population of 08 patients 100% DE faux pas of coitus which remains almost comparable to our series.

d- Anatomical Mechanisms and Lesions

In our series, all the fractures occurred on the penis when fully erect; thus bilateral lesions in the number of (04) cases classified type 4 were retained on a population of 06 patients and

proximal e; a unilateral lesion and a single case classified as type 1.

We did not find any ureteral damage (which could be classified as type 4)

Zargooshi (22) reports in his series 91.2% proximal involvement, 3.2% distal, average 5.4%.
50 % proximal involvement, 30% average, 20% distal.

Abdel Nasser in a population of 24 patients reported 41.7% of proximal involvement, average of 50%, distal of 8.36%.

No urethral damage classified as type 4 which is very rare but exceptional

e- **Diagnostic**

In our series the diagnosis is clinical and is completed by performing a penile ultrasound.

The circumstance of occurrence, the pain, the detumescence, the observation of the typical appearance of the eggplant is our diagnostic key and found in all our patients.

Image showing the typical appearance of obergine classified stage or grade 3



Figure 1: Appearance of a preoperative fracture of the penis seen at 5 hours following a coitus misstep at the HMIMV Rabat in 2020 in a 21-year-old patient: typical eggplant appearance and facing away from his lesion.

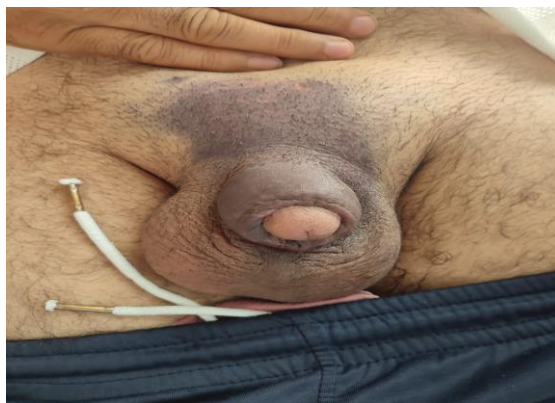


Figure 2: *Fracture of the penis with expansion of the hematoma on the pubis on 05/2023, classified type 3 (involvement of the corpora cavernosa and proximally, no associated lesion: butterfly wings).*

Our joins the literature with regard to diagnosis and remains comparable to the different references.^[12,13,14,15,27]

f- Time elapsed before consulting the emergency department

In our series the minimum time is 05 hours and the maximum is 15 days or 360 hours in one patient

The average consultation time is.....

This delay is explained according to the patient by shame

g- Treatment

The treatment is 100% surgical in our series and meets the new recommendation in the literature and all the series that we used as references with the creation of an elective incision in only one case out of 6 (1/6) and 5/6 cases of coronal incision at 3mm balanopreputial groove

A- Treatment

The first case of fracture treated surgically was reported in 1936 by FETTER,^[27] 24 years later in 1957 FERNSTROM supports this procedure.^[26]

Currently the standard treatment remains surgery, despite the conservative method which is sometimes requested either in a context of refusal to surgery or when the MRI is done, no lesion, but presence of an infiltrate, a small hematoma, and preservation of erection.^[12,2,22,23,24]

A- Principles^[12,21,22,24,25]**a- Principles of conservative treatment**

Remember this is not a standard treatment, it consists of applying an ice pack or compress soaked in ice serum and prescribing analgesics and anti-inflammatory drugs, antibiotics, benzodiazepines.

b- Principle of surgical treatment

A literature review was conducted, the results were in favor of early treatment once the diagnosis of corpus cavernosum fracture is made, the antibiotic is prescribed for 08 days (27).

- 1) Anesthesia Treatment can be done under local anesthesia, spinal anesthesia, or general anesthesia.

Some authors support the elective approach under local anesthesia allowing a return home the same day (24).

- 2) The first way

Several routes are possible, namely the coronal incision 2-3mm from the balanopreputial groove with complete decantation and allows an overall view of the corpora cavernosa and the corpus spongiosum but exposes itself to complications such as infection, edema, skin necrosis with a frequency from 14 to 25%. For ALBANY, the coronal incision is unique because in the vast majority of cases the site of the lesion is proximal (20) and presents side effects (damage to the superficial nerves leading to hyposensitivity of the penis).

It is particularly important to preserve the foreskin in the event of urethral damage for a possible **FERGAGNY urethroplasty** (28).

The longitudinal, lateral incision of a corpus cavernosum facing the lesion allows an elective approach without risk of comorbidities but at the cost of an unsightly scar.

The scrotal incision can be practical at the scrotal level, degloving is also possible this way for proximal fractures.

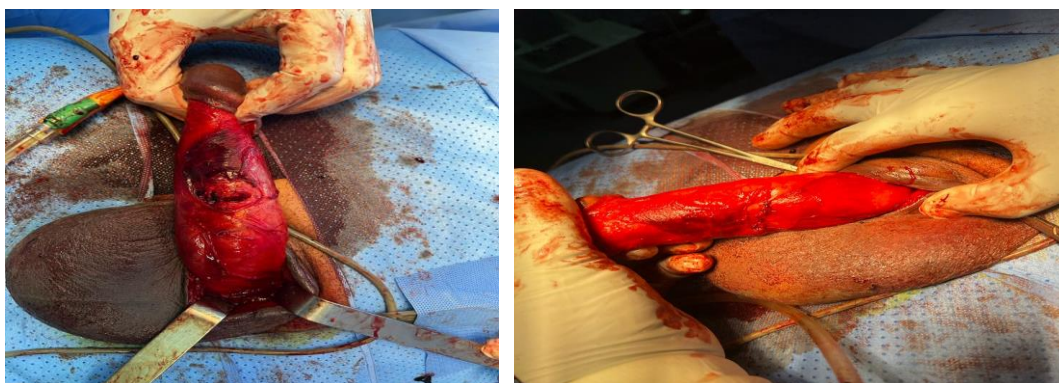


Figure 3: Surgery in figure 4 classified grade 3 (A=highlighting of the lesion and B=after closure of the lesion).

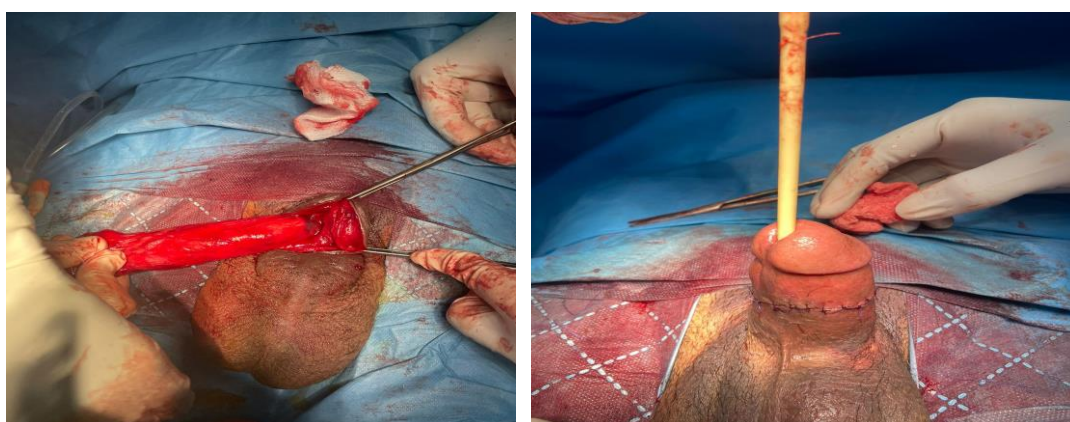


Figure 4: Intraoperative image of the 05/2023 penis fracture classified as type 3 HMIMV Rabat Urology department.

h- Following operations

The patients were seen again on D15, D30 and 3 months (long term covers six) in consultation.

Only one of our patents presented a curvature of the penis at an angle of 64° relative to the horizontal.

Our overall therapeutic results after this follow-up were found to be average in medical series.^[20,22,23,24]

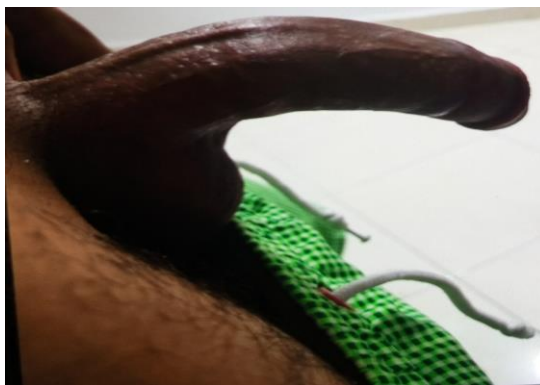


Figure 4: The only complication found in our study series.

i- Comparisons of some series with ours

Abdel Nasser (54) at six months, 95.8% was classified as good, penis curvature 4.2%, no sexual dysfunction

- Dicel (45) average follow-up duration 21 months, good result = 90.9%, no ED, no curvature
- Mazaris (34) over 24 months of follow-up good result = 100 % good result
- Fergany (28) in Cleveland in the USA, over a period of 19 months 100% was classified as good result
- Ours gave 83.34% good results and 16.66% bad results marked by curvature

CONCLUSION

Fracture of the penis is a rare but not exceptional pathology, interesting in 80% of young adults of various etiologies and whose prognosis depends on the grade of the fracture, the consultation time, and the quality of the care.

The diagnosis is based on a combination of clinical arguments (Image of eggplants of the penis, papilla-shaped hematoma on the pubis; sudden detumescence after a crack heard by the patient) and paraclinical (Penile Doppler ultrasound, MRI, cavernography).

The standard treatment remains elective or coronal surgery

A follow-up on D15; J30; at month and 6 months is necessary in order to diagnose any complication (In our series only one complication was noted due to diagnostic delay).

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