

Management of Priapism at the Fousseyni Daou Hospital in Kayes about 21 Cases

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Abstract: Priapism is a painful and pathological erection caused by various abnormalities in erectile hemodynamics [1]. There are several aetiologies of which the common long-term risk is to cause sequelae erectile dysfunction in 50 to 60% [1, 2, 3]. In Mali, the main cause of priapism is sickle cell anemia. Our objective is to study the socio-demographic, clinical and therapeutic aspects of priapism at the Fousseyni Daou hospital in Kayes. This was a cross-sectional and descriptive study involving a series of 21 patients. It lasted 56 months (April 2016 to February 2020); performed in the urology department of the Fousseyni DAOU hospital in Kayes. The inclusion criteria for the study were: records of patients who presented with priapism during the study period. Records of patients with intermittent priapism were excluded. Treatment consisted of a transglandular caverno-cancellous shunt type Ebbehøj to local anesthesia associated with drug treatment. The main reasons for seeing patients are pain and being in a state of priapism. The age group of 8 to 20 years was 52% and 71.4% of our patients presented sickle cell traits including SS phenotype: 19%, SC: 19% and AS phenotype: 33.3%. 42.9% of our patients presented a lack of erection after an episode of priapism. Delays of more than a week were observed in 3 patients. Prevention of these priapisms involves regular monitoring of sickle cell patients.

Keywords: Priapism, Fousseyni Daou, transglandular.

INTRODUCTION

Priapism is a painful and pathological erection caused by various abnormalities of erectile hemodynamics [1]. There are several etiologies whose common long-term risk is to cause sequelae erectile dysfunction in 50 to 60% [1-3].

This is a real urological emergency requiring adequate diagnostic and therapeutic care. It is essential that the practitioner knows how to distinguish between the two clinical forms of priapism whose treatments are different: stasis priapism and high-flow priapism [3, 4].

In Mali, the main cause of priapism is sickle cell disease. This complication is generally ignored by the population. And also we note a delay in the referral of patients from the base to the specialized centers of the health pyramid.

Our objective was to study the socio-demographic, clinical and therapeutic aspects of priapism at the Fousseyni Daou hospital in Kayes.

Specific objective

Ensure the care of patients suffering from priapism by the Ebbehøj technique under local anesthesia.

MATERIAL AND METHODS

This was a cross-sectional and descriptive study involving a series of 21 patients. It had lasted 56 months (April 2016 to February 2020).

The study was carried out in the urology department of the Fousseyni DAOU hospital in Kayes. The following parameters were studied: ethnicity, age, consultation time, etiologies found, surgical treatment as well as functional and postoperative complications and the result.

The inclusion criteria for the study were: records of patients who presented with priapism during the study period.

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The exclusion criteria were the records of patients who had episodes of intermittent priapism. The treatment consisted of performing a transglanular cavernous-cancellous shunt of the Ebbehoj type associated with drug treatment.

The patients had been followed for an average of 2 months; with extremes of 1 month to 1 year. Erectile function was assessed in children during the interview by looking for nocturnal or morning erections and in adults by the IIEF-5 score.

The patients were therefore classified into two groups.

- Groupe 1: no erection
- Groupe 2: normal erection.

Patients diagnosed with sickle cell disease were referred to the sickle cell center after their surgical management and after obtaining complete detumescence. The software used was Microsoft Word 2007 and SPSS file version 20.

RESULTS

The type of priapism collected was stasis or ischemic priapism. The average age of our patients was 23 years old, the extremes were 8 to 47 years old.

In all our patients, the episodes of priapism occurred spontaneously during sleep except in one case where the patient had taken aphrodisiac drugs.

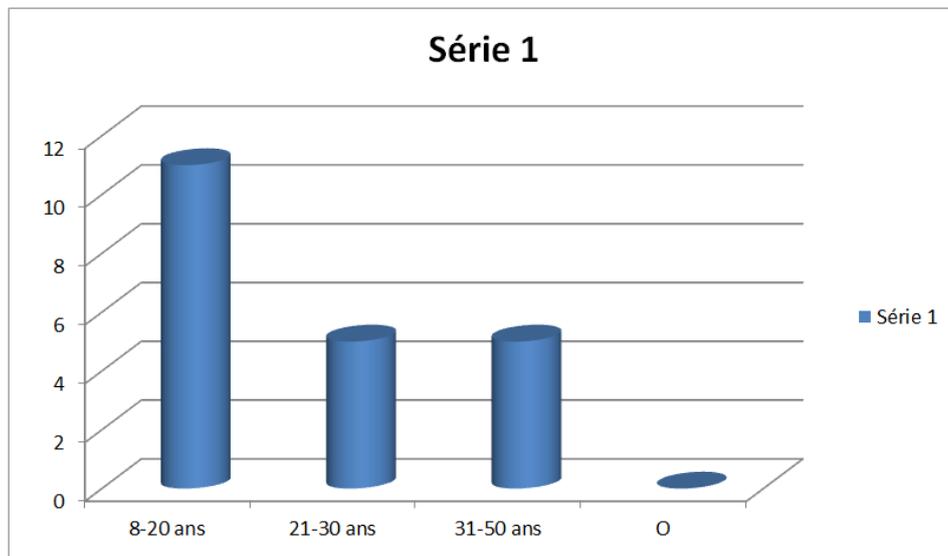


Fig-1: Repartition des patients selon age

The age range of 8 to 20 years old was 52%.

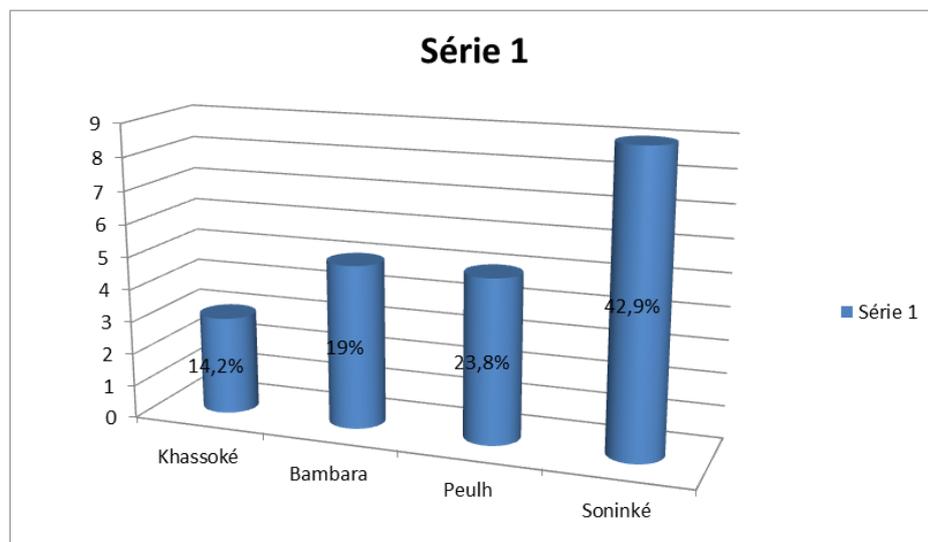


Fig-2: Distribution of patients by ethnicity

42.9% of our patients were Soninke

Table-1: Distribution of patients according to consultation time

TIME LIMIT	FREQUENCY	PERCENTAGE
12 -24 heures	11	52,4%
2-4 jours	7	33,3%
1 semaine	3	14,3%

More than half of our patients had consulted 12 hours after the onset of priapism.

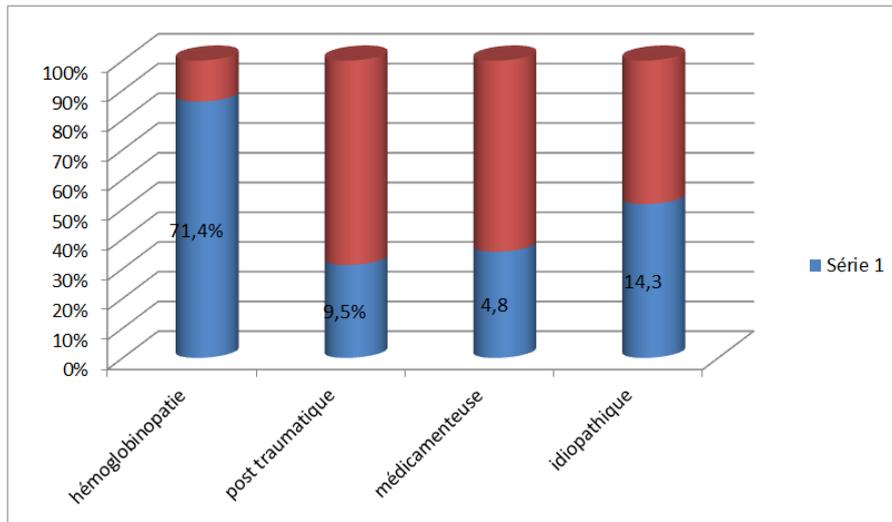


Fig-3: Distribution of patients according to the underlying pathology or according to contributing factors

71.4% of our patients had sickle cell traits including SS phenotype: 19%, SC: 19% and AS phenotype: 33.3%.

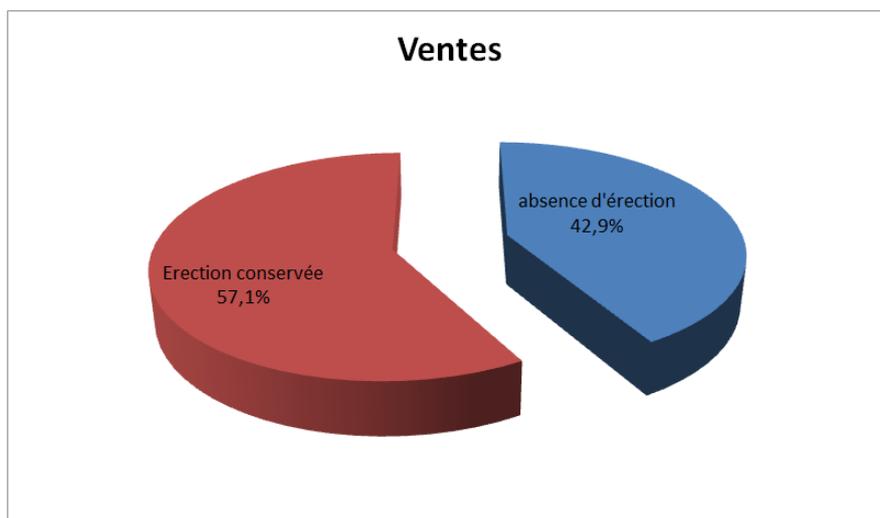


Fig-4: Distribution of patients according to the existence of any functional sequelae or not

42.9% of our patients had no erection after an episode of priapism.

Complementary examinations: carried out were:
 NFS: blood count
 Rhesus group
 Hemoglobin electrophoresis

Treatment

It was primarily surgical and medical. A transglandular cavernous-cancellous shunt was performed using the Ebbehøj technique performed in the operating

room under local anesthesia with 2% injectable xylocaine after entering a safe venous route.

The technique consisted of infiltrating the glans by injecting 2cc of 2% xylocaine. This infiltration was preceded by a penile block by injection of 2% xylocaine on the dorsal side of the penis near its root, 2cc on each side.

A transglandular incision was then made with a number 11 scalpels blade longitudinally, turning the blade 90°. The incision was made on one of the corpora

cavernosa, sometimes both, letting blackish, viscous, incoagulable blood flow. We continued the treatment with a gentle massage followed by irrigation with saline solution.

Taking effort 5 mg: 2 tablets 3 days.
 Rehydration, iso-group iso-rhesus transfusion
 Alkalinization with 1.4% bicarbonate serum.



Illustrative images of the Ebbehøj Distal Caverno-Cancellous Shunt Technique

In one case, the patient had been taken back to the operating room for persistence of priapism despite the creation of a bilateral distal cavernous-cancellous shunt; and a proximal caverno-cancellous shunt was performed at his home using the Quackels technique.

After surgical treatment, progressive detumescence was observed in all patients. In the postoperative course, one patient had had suppuration of the surgical wound with urethral fistula.



Persistence of priapism despite a distal shunt



Post-op complications: Suppuration of the wound with urethral fistula

Table-2: Distribution of patients according to length of hospitalization

Durée d'hospitalisation	Fréquence	Pourcentage
1 jour	3	14,3%
5 jours	13	61,9%
1 semaine	4	19,%
3 semaines	1	4,8%

61.9% of our patients were hospitalized for 5 days.



State of priapism in a 12-year-old patient with sickle cell disease

DISCUSSION

The main reasons for consulting patients are pain and being in a state of involuntary prolonged erection in the absence of sexual desire, even if it could exist at the start.

More than half of our patients had consulted after a delay of 12 hours; three patients had been received after a week in a state of priapism. These consultation delays were noted in the study by R KANE [5]. We were able to explain them on the one hand by a cultural practice of our patients who initially consult the traditional healer or the marabout of the district before consulting the health agents, on the other hand by the ignorance of certain health agents of the functional emergency represented by this pathology. They only refer the patient after they have exhausted their treatment options; which increases the risk of permanent erectile dysfunction in almost 90% after 24 hours without effective treatment.

Delays in consulting were also attributable to the modesty of some patients, hoping for spontaneous detumescence, had consulted late in a health center.

In our etiological research, 3 cases were of idiopathic origin; but these cases could be explained by dehydration; especially since they occurred during the hot periods of the year in our country (April, May and June), thus exposing these patients to dehydration, which increases their blood viscosity. The only admitted case of taking erectogenic drug had occurred on a ground sickle cell.

71.4% of our patients had sickle cell traits with 33.3% AS phenotype and 19% SS and SC phenotype. In a series of 22 patients Fall *et al.* [6] reported 18 cases of the SS phenotype. This study differs from our series by the majority difference in phenotype which is 33.3% (7) for the AS form. In the study by R Kane *et al.*, the majority genotype is that of the SS form and 40% [5] of the patients had sickle cell disease. This rate is lower than that of our study. The involvement of sickle cell disease in the occurrence of priapism has been reported by several studies. Thus, in Nigeria [7], this rate is estimated at 87%. Bruno *et al.* [8] found that 27% of

black Americans with priapism had sickle cell traits compared to the general population.

Therapeutically, the Ebbehøj-type transglutular puncture was used in all patients because of the delay in diagnosis. The distal cavernous-spongy shunt (Ebbehøj) was the technique used in first intention in all our patients with a detumescence rate of 91.7%. This result is superior to that obtained by Montague *et al.* with a detumescence rate of 73% [9].

In one case, the proximal cavernous-cancellous shunt (Quackels) was used as a second intention with a success rate of 8.3%. A case of wound suppuration with urethral fistula was recorded. In three cases the patients were transfused because of anemia.

Erectile dysfunction was present in 9 (42.9%), this rate is higher than that obtained by R. Kane and collaborators (20%) [5]. This high rate of loss of erections is explained by the delay that patients take before consulting and also by the small size of the sample. Erection was normal in 12 patients (57.1%) in our series, it was 60% in R. Kane's series [5].

The relationship between erectile dysfunction and delay in treatment has been reported by other studies. The limitations of our study are the difficulty in specifying erectile dysfunction in children, the small sample size.

CONCLUSION

Priapism is a relatively frequent pathology in our current practice in urology. A peak in frequency is observed during the hot season. Rapid and adequate management of its ischemic form would prevent the occurrence of functional complications (erectile dysfunction). In Africa it most often occurs on a sickle cell site.

The prevention of these priapisms requires regular follow-up of sickle cell patients at the level of the care center for sickle cell patients and better coordination between these doctors and urologists.

Surgical management of priapism using the Ebbehøj technique is simple, quick and effective. This treatment is associated with drug treatment.

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