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Traditional Aphrodisiac Induced Priapism: A Case Report

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Abstract **Case Report**

Priapism is defined as an abnormally prolonged erection, exceeding six hours, often painful and irreducible, occurring outside of any sexual stimulation and not leading to ejaculation. We report a case of priapism with delayed hospital admission in a young man following an ingestion of traditional aphrodisiac ingestion, and treated surgically. Multiple surgical techniques are available, ranging from simplest to most complex. The principle remains the same: to drain a high-pressure system (corpus cavernosum) into a low-pressure system (corpus spongiosum or peripheral venous system). We used Al-Ghorab's technique to treat our patient, and the post-operative follow-up was uneventful.

Keywords: Priapism, traditional aphrodisiac, surgery.

INTRODUCTION

Priapism is defined as an abnormally prolonged erection, exceeding six (06) hours, often painful and irreducible, occurring without any sexual stimulation and not leading to ejaculation [1]. The incidence of priapism in the general population is around 1.5 cases per 100,000 people [2].

It is a urological emergency requiring immediate management to prevent complications which include sexual impotence. This is the most dreaded complication, occurring in 50% of priapism cases [3].

The prognosis of treated priapism depends on its duration and etiology. The longer priapism persists, the less likely it is to be cured, as irreversible damage to the erectile tissues responsible for the erectile dysfunction sets in [4, 5].

We report a clinical case of a patient admitted to the emergency department of the *Centre Hospitalier Universitaire de Zone Suru lere* (CHUZ- Suru lere) in Cotonou for priapism.

CASE PRESENTATION

Patient A. K., a 30-year-old man with no medical or surgical history and no history of sickle cell disease, was referred from a local hospital for prolonged erection after taking a traditional aphrodisiac.

The condition appeared 15 days prior to his admission, when the patient took a traditional aphrodisiac to maintain sexual performance, resulting in an abrupt, prolonged and painful erection. After visiting a number of health facilities, the patient was finally referred to CHUZ-Suru lere on the 15th day of his condition. On physical examination, the patient was found to be in good general condition, with a tumescent penis, a soft glans, a tense corpus cavernosum with a sensation of induration and discrete pain on palpation (Figure 1).

The patient was hospitalized, a venous catheter was inserted and a blood sample was taken for various laboratory tests, including blood count, platelet count, and blood typing. Doppler Ultrasound and arterial blood gas test were not performed. The patient was then admitted to the operating room in emergency.

The surgical technique performed was Al-Ghorab technique (Fig 2), which involves making a 2 cm transverse incision on the dorsal surface of the glans penis, 1 cm distal of the coronal sulcus [2]. The incision is extended down to the distal end of the corpora cavernosa, and a 5 mm diameter patch of tunica albuginea is excised from the distal part of each corpora

cavernosa. Concomitant irrigation of the corpora cavernosa was done with 0.9% NaCl solution. The glans incision was superficially closed with absorbable thread. Complete detumescence was achieved during the immediate follow up period. A dry compressive dressing was applied (Figure 3).

Figure 1: Penile tumescence

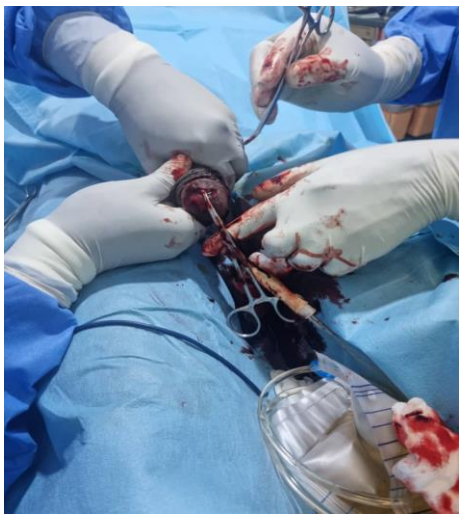

Figure 2: Al-Ghorab surgical technique

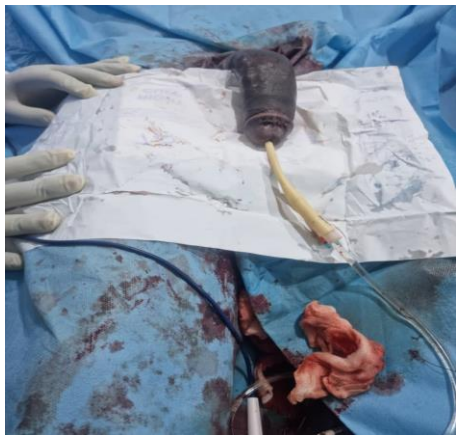

Figure 3: Penile detumescence

DISCUSSION

Priapism can present in two distinct forms [6, 7]: acute and chronic. The acute form comprises two subtypes: ischemic priapism (low-flow or veno-occlusive), by far the most frequent (95% of all forms), and non-ischemic priapism (high-flow or arterial) [8, 9]. Chronic intermittent priapism (stuttering priapism) is often ignored and poorly described; some authors suggest that its mechanism is also ischemic [7].

Acute ischemic priapism is a urological emergency, as its persistence beyond 48 hours reduces the chances of preserving erectile function by 50% [10, 11].

In our study, the main etiology was the use of traditional aphrodisiacs, in contrast to the series by Oumarou Habou *et al*., in Niamey, where the predominant etiology was sickle cell disease (62.02%), traditional self-medication (13.79%) and sildenafil overdose (10.34%) [12]. Around 50% of drug-induced priapism is thought to involve neuroleptics [13]. The main pathophysiological mechanism of priapism is considered to be obstruction of the venous system, resulting in reduced venous drainage, through blockage of the sympathetic control system due to an antagonistic action on a1-adrenergic receptors [14]. The consequence of this imbalance between sympathetic control via a1-adrenergic receptors (generating detumescence) and the parasympathetic system linked to erection would be vasodilatation and permanent relaxation of the smooth muscle of the corpora cavernosa, hence permanent erection [15]. However, the precise mechanisms of traditional aphrodisiacs in priapism have certainly not all been elucidated, and are likely to be multifactorial, and certainly not attributable to consumption of very high doses, without ruling out a combination with pro-erectile drugs or predisposing factors [16, 17].

Treatment of veno-occlusive priapism with neuroleptics or other causative drugs is consistent with the usual treatment of all venous priapism [16]. Ischemic priapism should be treated as an emergency. The time of onset of erection should be recorded, and the patient informed of the possible outcomes of priapism. [17]. The prognosis is essentially linked to two factors: the etiology of priapism and the delay in management to avoid erectile sequelae secondary to cellular necrosis and fibrosis [16].

There are many different surgical techniques, ranging from simplest to most complex. The principle remains the same: draining a high-pressure system (corpus cavernosum) into a low-pressure system: corpus spongiosum or peripheral venous system. Three types of shunts are generally used: corpora cavernosa to corpora spongiosum shunt, spongio-cavernosus anastomosis and the corpus cavernosum-saphenous vein anastomosis [18].

In our case, we initially resorted to Al-Ghorab-type spongio-cavernous anastomosis, resulting in immediate penile detumescence (Figure 3). Instead, Falandry L's study concluded that "open" transglandular cavernosal spongiosum puncture and drainage is the procedure that should currently be performed rapidly, in drug-induced priapism, when the erection exceeds six to ten hours and becomes irreducible. The overall long term success rate is 65.3% [19]. By comparison, the series treated with the Al Ghorab technique registered 33% of patients regaining normal erections [19]. The American Urological Association recommends the immediate use of intra-cavernosal injections of alpha1-adrenergic agonists (terbutaline) to minimize the morbidity associated with prolonged priapism [20].

The prognosis in our case was severe, with loss of erection. This aligns with most of the data in the literature. Erectile dysfunction is almost always present in patients with 36-48 h of priapism, given the advanced damage to smooth muscle tissue [21].

Current European urology and AFU (Association Française d'Urologie) recommendations suggest that penile prosthesis should be considered in cases of priapism lasting more than 48 hours, or cases of priapism refractory to conservative/shunting treatments, and that penile implant should be performed within three weeks of the priapism episode in the absence of shunting [17, 21].

CONCLUSION

Priapism is a urological emergency often encountered in sickle-cell patients, but sometimes seen in aphrodisiacs consumers. It requires immediate management to prevent complications including sexual impotence.

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