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Case Report

Unusual Case of Priapism in Emergency Department of Tertiary Care Hospital of Eastern Nepal

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Abstract: Priapism is a rare and unusual presentation in Emergency Department of Nepal and is really a challenge for the working Emergency Physicians. In Nepalese context it is a social stigma and is often a pitfall due to possible delayed presentation. A young Nepalese Hindu male presented to our Emergency Department with post coital priapism who seeked help only after ninety-six hours in request of his wife. In limited resource hospital settings with delayed presentation, aspiration and irrigation of corpora cavernosa with heparinized saline had shown good outcome in treatment of priapism without any postoperative complications regardless of prolonged stay in emergency department.

Keywords: Nepal, Priapism, Unusual Case

1. Introduction

The word 'Priapism' is related to 'Priapus' the Greek and Roman God of procreation whose symbol was an erect phallus and is exclusive to men. [1-2]

Though priapism has an incidence of 1.5 per 100,000 persons-years, it is still a very rare, unusual and challenges for the working Emergency Physician of today's world. [3]

2. Case Report

A 37-year-old Nepalese Hindu male presented to Emergency ward of BP Koirala Institute of Health Sciences (BPKIHS) with a history of priapism following coitus. The delay of presentation was ninety-six hours. He was moderately built, well nourished, non-anemic, non-icteric and there was no lymphadenopathy. The patient had no known past medical problems or history of trauma. He also denied taking any antipsychotics or anti-depressants, alcohol or cocaine. Local examination revealed an erect, swollen, engorged and tender penis with engorged veins on its surface. His tests revealed Hemoglobin (Hb) 13.9g/dl, hematocrit 27.8%, Total leukocyte count (TL-C) 150×109/L. Platelets 215×109/L. Complete blood count (CBC), random blood sugar, renal function tests, electrolytes, serology, coagulation profiles and urine routine tests were performed. All the investigations were within normal range except Ultrasonogram of Penile shaft which revealed as thickened and edematous bilateral corpora cavernosa. There was no evidence of hematoma, Corpus Spongiosum appeared normal, dorsal penile artery and vein appeared normal, no evidence of thrombus. He was managed conservatively in Emergency department with analgesics, anxiolytics and steroids as he was reluctant to any kind of surgical intervention and insisted for continuity of conservative medications. Finally, the patient was convinced for bilateral aspiration where 15 to 20 ml of dark colored blood was aspirated from the corpus cavernosa and irrigation was done with heparinized saline. The penis then returned to flaccidity.

3. Discussion

Priapism is a pathological condition characterized by penile erection that persists for longer than six hours and is unrelated to sexual stimulation. It is further categorized by Hauri D, et.

al and Winter CC, et. al as high flow (non-ischemic) and low–flow (ischemic) where low-flow is caused by hematologic disease; mainly sickle cell disease and leukemia if untreated, results in necrosis of the cavernous muscle and subsequent fibrosis and erectile dysfunction.

High- flow priapism usually occurs due to an episode of trauma to the perineum, groin or the genitalia resulting in increased in blood flow through the arteries. [1-2, 4, 5]

Mulhall JP et. al stated that Lab investigations like CBC, reticulocyte count, Hemoglobin-electrophoresis, psychoactive medication screening and urine toxicology help to rule out sickle cell disease, leukemia and drug abuse. [6]

Intracorporal Blood Gas Analysis is also a good test but Color Doppler ultrasound and arteriography of penis can further help to differentiate between high-flow and low-flow priapism.

Pryor, J. et. al demonstrated that Low-flow, ischemic or anoxic priapism is an emergency condition and if untreated, results in necrosis of the cavernous muscle and subsequent fibrosis and erectile dysfunction. It is an example of the compartment syndrome and requires urgent treatment. [1]

A wide variety of treatment options has been reviewed in literatures including the use ice packs, pressure dressings, ice water enemas, hot water enemas, prostatic massage, sedatives, analgesics, estrogens, amyl nitrate, systemic anticoagulation, vasodilators and general anesthesia. The overall conservative management does not reveal significant success rate. Surgical procedure is another option with the success rate is reported to be up to 75%. [7-11]

Immediate aspiration and irrigation of corpora cavernosa as well as injection of α-adrenergic agents had shown good outcome in a study done by Rosenstein D et. al. [12]

A higher number of leucocytes in hyperleucocytic syndrome lead to formation of leucocyte aggregates and thrombi leading to occlusion of blood vessels. [13] Leucocyte count greater than 100×109/L or more is a major contributory factor for the whole blood viscosity. CML also accounts for 15-20% of adult leukemias. Our patient had high leucocytes count which could explain the cause leucocyte aggregates and/or thrombi formation resulted leading to priapism. [14-16]

Failure to manage early within 24 to 48 hours may lead to irreversible cellular damage and fibrosis stated by Winter CC. et. al. However, in our case the patient responded well even to delayed management. [5]

The sociocultural stigma attached to such condition in Nepalese context still prevails many people may believe that discussion of these issues may be considered taboo. The patient would not have presented to hospital unless after persistent request by his wife. This would definitely show a need for sex education between the spouse and in the community as well.

4. Conclusion

We have presented a case of delayed post coital priapism i.e. ninety- six hours in emergency department that responded to aspiration and irrigation with heparinized saline with satisfactory outcome in treatment without any postoperative complications.

The sociocultural issues may be helped by sex education and might be useful tool in future perspective. There is need of more research to explore the barrier of such stigma.

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