Heroin Associated Priapism

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Abstract

Priapism is a pathologically prolonged and painful penile erection, usually unassociated with sexual desire or intercourse. Causes include certain oral medication, although the mechanism for drug-induced priapism is unknown. We describe one case of priapism attributed to penile heroin injection.

Key words: Priapism, Penile erection, Medications, Heroin

Introduction

Priapism is a prolonged and extremely painful erection unaccompanied by sexual desire. The incidence of priapism is low but seems to be higher than was previously assumed. In a population-based retrospective cohort study within a general practitioners research database, the overall incidence rate of priapism was reported 1.5 per 100,000 person-years. The incidence rate in men 40 years old and older was 2.9 per 100,000 person-years. Of five patients with priapism, no cause of priapism was apparent in two patients, two cases occurred after intracavernous injection of vasodilators, and one patient experienced priapism because of sickle cell disease.

Etiologically, priapism classified into primary (idiopathic) and secondary. Drugs are one of the most important and usual causes of secondary priapism. For example prolonged erection is a small but significant risk in patients treated with intracorporeal injections of vasoactive drugs. Of particular note, drug-induced priapism lasting for more than 48 hour frequently leads to the development of corporeal fibrosis.

To our knowledge we report the first case of priapism associated with penile heroin injection.

Case Report

A 32-year-old man was admitted for pain and swelling of his penis. He was an Injection Drug User (IDU) that had an attempt at heroin injection two weeks ago. His complaints included painful swelling of his penis, low grade fever, mild dysuria, malaise and cough with small amounts of sputum production.

Physical examination revealed no noticeable finding except enlargement of his penis and tenderness in palpation of affected area. Laboratory data included leukocytosis and mild leukocyturia and bacteriuria on urine analysis.

Color Doppler ultrasonography revealed bilaterally increased echoes of corpora cavernosa, multiple tiny hyperechogenic foci suggestive of fibrosis.
and significant amounts of skin edema. Arterial flow in cavernosal arteries, penile veins and retrograde venous plexus was reported normal and phasic. Because patient left the hospital illegally, before complete his treatment, we had not anymore information about him (i.e., clinical course, other laboratory data, etc.)

Discussion

Priapism is a prolonged (more than 4 hour duration) and extremely painful erection unaccompanied by sexual desire and is often preceded by usual sexual stimuli. The condition is self perpetuating and is characterized by diminished perfusion of the corporal bodies. When chronically present, corporal fibrosis and erectile dysfunction occur. The etiologies of priapism are numerous and diverse. The disorder is idiopathic in 60% and in 40% of cases are associated with diseases. In the younger group, priapism is most often associated with sickle cell disease or neoplasm. In the older group, many cases are idiopathic. Prolonged erection is a small but significant risk in patient treated with intracorporeal injections of vasoactive drugs. Other medications which may be accompanied with priapism included: phenothiazines, trazodone, cocaine, and warfarin and prostaglandin E-1.

Recent advances in the understanding of erectile physiology have improved the prompt diagnosis and treatment of priapism. During initial assessment, the physician must distinguish between veno-occlusive low flow (schematic) and arterial high flow (nonschematic) in order to choose the correct treatment option for each type of priapism. Patient history, physical examination, penile haemodynamics and corporal metabolic blood quality assist the distinction between static and dynamic priapism. Normally, priapism is effectively treated with intracavernous vasoactive agents or surgical shunting.

However, when these two methods fail, subsequent treatment procedure are a matter for debate. Alternative options included: intracavernous injection of methylene blue or selective penile arterial embolization, for the management of high and low flows priapism.

Evidence of fibrosis in our patient may be discussed by delay diagnosis and treatment of priapism and prolong decreased perfusion of the corporal bodies.

Although infection of the corpora cavernosa can be a serious life-threatening complication with intracorporeal injections especially in diabetic patients (because of altered blood supply to the penis and a change of cavernous tissue ischemia). Fever and leukocytosis in our patient was temporary and healed without any specific treatment and thus it was not related to infection of the corpora cavernosa.

References