

PENILE STRANGULATION IN AN UNDIAGNOSED MENTALLY SICK PATIENT: A CONCERN FOR INCREASED SCREENING

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ABSTRACT
Penile strangulation is a rare condition that must be recognized as an emergency to remove the constricting device and restore penile blood flow. Different kinds of metallic and non-metallic objects placed over the penis due to various reasons pose a constrictive risk of impeding vascular supply with attendant necrosis and/ or gangrene. The situation is compounded when it occurs in mentally sick individuals. The identification of penile strangulation in a mentally sick patient could be difficult, especially if the patient is self-isolating. We present a case of a middle-aged male with an undiagnosed mental illness, who presented to a medical outreach program with penile strangulation by a metal ring. The patient was evaluated and sent for advanced care at the tertiary center where he was treated and discharged to the psychiatry department for follow-up care.

KEYWORDS: Mental illness, metal, penile, ring, strangulation.

INTRODUCTION
Strangulation of the penile shaft gained recognition from the first published case in the 1750s.^[1] It is an urological emergency given the consequences which range from gangrene and loss of the penile shaft to sepsis and even death. The causes are basically linked to self-stimulation and sexual gratification.^[2] Other added causes include devices for urinary drainage in the management of incontinence, enuresis; treatment of erectile dysfunction; and psychiatric disorder. However, there is scanty literature on penile strangulation in known psychiatric patients and undiagnosed mental cases. The common objects that have so far been implicated include washers, plastic and steel rings, bottles, rubber bands, bottlenecks, ball bearings, and wedding rings. These constricting objects are easily passed over the flaccid penis. However, they remain stocked, thereby preventing venous and lymphatic drainage despite the initial unblocked arterial supply. It subsequently leads to secondary edema resulting in an inability to remove them. The resultant edema causes compartment syndrome of the penile shaft with the definite block of arterial blood supply. The tissues of the penile shaft are

deprived of oxygen supply resulting in tissue ischemia and necrosis.^[2,3]

Proactive steps must be taken to prevent the incidence of penile strangulation. Furthermore, early removal of these culprits mentioned above is imperative for urgent restoration of vascular supply as delay in treatment often has irreversible consequences of damage to the penis.^[4] Screening of mental illness is necessary among the patients encountered at the primary care level. This is necessary as it prevents the instincts of the patients to put constricting objects or rings into their penis. We, therefore, report a case of penile shaft strangulation in an undiagnosed mentally sick patient.

CASE PRESENTATION
A 36-year man, presented to a medical outreach program in a village, organized by a local medical association. He came with his mother with a history of 48-hour penile swelling following a metal impaction at the base of the penile shaft. He inserted a metal bearing into his penis as instructed by a voice he could not identify. He reported a few instances of hearing voices in the past. The patient described the cause of his problem as a witch-craft.

However, there was no history of mental illness in the family but the patient endorsed occasional use of marijuana. Examination findings were remarkable for tachycardia with a heart rate of 106bpm and bullous swelling of the entire length of the penis with some ulceration and dark discoloration. The glans were engorged with a slight ulceration as well. A metallic ring measuring 6 cm in its outer diameter and 5 cm in its inner diameter, was impacted at the base. No significant findings in other systems. A provisional diagnosis of penile strangulation in undiagnosed mentally ill patient was made. Manual attempts to remove the metal ring were unsuccessful. The patient was referred to the tertiary hospital.

He presented to the tertiary hospital where he was reviewed by the urology team as an emergency and the metal ring was removed through an operative technique. He was subsequently treated with antibiotics and discharged to the psychiatric department.



Figure I: Strangling Penis.

DISCUSSION

Penile injuries through strangulation by constricting metal or plastic objects are uncommon cases. However, a few are reported in the literature.^[5] It has been described as a rare urological emergency that requires the immediate removal of the constricting object. Nuts, bottles, rings in adults, and threads, hair, or rubber bands in children have been implicated as reported by Jain et al.^[6]

These constricting objects produce injuries of various degrees ranging from mild penile engorgement to the formation of fistula and gangrene. Bruises may develop in an attempt to remove them.^[7] These led Bhat et al to develop a grading system to characterize these injuries as shown below on the Bhat scale ranging from Grade I causing edema of the distal penis, to Grade V presenting with gangrene, necrosis, or complete amputation.^[8]

BHAT SCALE

Grade I: Edema of distal penis. No evidence of skin ulceration or urethral injury.

Grade II: Injury to skin and constriction of corpus spongiosum but no evidence of urethral injury. Distal penile edema with decreased penile sensation.

Grade III: Injury to skin and urethra but no urethral fistula. Loss of distal penile sensations.

Grade IV: Complete division of Corpus spongiosum leading to urethral fistula and constriction of corpus cavernosa with loss of distal penile sensations.

Grade V: Gangrene, necrosis, or complete amputation of distal penis.

Many techniques for the removal of the offending objects have been described but the variable clinical presentation and varying types of objects preclude any single technique to be universally pertinent. However, the need for immediate identification and removal is imperative to preserve the vascular supply. The choice of removal technique is dictated by the size, type, and composition of the object, duration of strangulation, grade of injury, experience of the surgeon, and availability of the equipment.^[9]

Various reasons have been given for the placement of these constricting objects that encircle the penis. Auto-eroticism was the reason given in a report by Jain et al, Trivedi et al, and Patel et al.^[10]

The index case is about a young man with undiagnosed mental illness as further evaluation of the psychiatric team revealed. Ichauui et al^[11], Patel et al, and Sreenath et al^[12] found concordance findings in their various reports in which the patients have mental illnesses. It is understood that mental illness contributes to this rare incidence. Therefore, a detailed clinical evaluation of the cognitive state of the patients presenting at the primary care centers by a primary care physician or mental health physician may reveal underlying mental illness. The various screening tools should be provided at the regional and local hospitals to assist in the early diagnosis of mental illness. Early diagnosis and treatment of mental illness undoubtedly will reduce the instinct to put a metal ring on the penile shaft,

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