Penile entrapment : report of two cases treated with hacksaw

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ABSTRACT
Entrapment of the penis is a rare emergency situation usually associated with an attempt to improve sexual act and/or to prolong erection. It requires urgent treatment for decompression of the penis to avoid adverse effect. Here we describe two cases of penile entrapment that presented to our hospital.

KEYWORDS: Penile entrapment

INTRODUCTION
Entrapment or strangulation of the penis is usually associated with an attempt to improve sexual act by maintaining a prolonged erection. It is rare condition but requires urgent intervention and treatment. The objects usually used by adults and adolescents for penile entrapments are rings, nuts, bottles, sockets or pipes. With children it is usually accidental, typical objects being rubber bands, thread, or hair¹. Nonmetallic, thin objects can easily be cut off, but penile entrapment with heavy metal objects can pose difficult problem, especially as the object cannot be removed by the standard equipment available in the wards and hospitals ².

Penile entrapment could lead to different degree of vascular obstruction ranging from mild non-significant vascular obstruction that resolves after decompression to severe gangrene of the penis accompanied with impaired renal function³.

Bhat et al. have delineated a grading scale for penile incarceration : grade 1 – distal edema only; grade 2 – distal edema with skin and urethral trauma, corpus spongiosum compression, decreased penile sensation; grade 3 – skin and urethral trauma, no distal sensation; grade 4 – separation of corpus spongiosum, urethral fistula, corpus cavernosum compression, no distal sensation; and grade 5 – gangrene, necrosis or distal penile amputation ⁴.

CASE HISTORY
A 22 year boy presented to the emergency with a 1 inch long and 0.25 inch thick ring around the base of his penis which he had placed 24 hours ago believing that the act would increase the size of his penis. He had tried to remove the ring applying soap and oil on the shaft but failed. On presentation, the penile swelling was extremely painful and tender, precluding any efforts to compress the penis manually to allow the ring to be slipped off. The patient was taken to the operation theater and under spinal anaesthesia, the ring was cut with a hacksaw. The normal colour and contour of the penis returned soon after the removal. The patient made an uneventful recovery.

A 42 year man presented to the emergency with a half-inch caliber and 2 inch long iron socket entrapped around the base of his penis for 24 hours (Figure 1). He was habituated to this act, but was unable to remove the object this time. He had presented to the hospital after developing acute retention of urine, pain and swelling of penis. Like in the previous case, the edema was extreme and due to pain and retention of urine, he was in agony. Under penile block with local anesthetic, the object was cut with help of a hacksaw (Figure 2,3). Along with prophylactic parenteral antibiotic and...
analgesia. Tetanus prophylaxis was also given. The patient passed urine postoperatively and the colour and contour of his penis returned to normal soon after. The patient was lost to follow up.

**DISCUSSION**

Presentation of penile entrapment with metal objects is a recurrent worldwide occurrence. The reported motives for placing a metal incarcerating device include enhancement of sexual response, erectile dysfunction self-treatment and psychiatric disturbance.

Entrapment of the penis by an encircling object leads to swelling of the penis distal to the object due to the initial blockage of the venous return and later arterial supply. After several hours, penile strangulation can result in ischemic necrosis and fibrosis of the tissue. Reported complications occurring with time and degree of incarceration include: urinary retention, skin ulceration, desquamating epithelium and bullae, urethral stricture, urethral fistulas, priapism, gangrene and auto amputation, thus requiring urgent treatment. If the constricting object is nonmetallic or thin, it can be easily cut off, but thick, hardened steel is very difficult to remove with a chisel, saw, or cutter. There are many methods for removing thick, hardened strangulating materials, including aspiration of the corpora or the use of saws, grinders, dental drills, and the string method.

Cutting metal produces heat, and to prevent tissue heating, the metal must be cooled. The penis itself must be protected during cutting, which can be difficult because there is usually little room between the metal and penis. Likewise the metal must be cut in two spots to avoid damage to penile skin during removal. In our patients we continuously sprinkled water to cool both the penile tissue as well as the hacksaw blade. In the second case, we inserted a screwdriver available in the hospital tool box in between the penile shaft and the socket for protection. In both the cases, the metals were cut in two spots opposite to each other.

In conclusion, although penile strangulation is uncommon, it can be very challenging to manage. The treating doctor needs to be creative in his attempts to remove the strangulating device, using non–medical instruments if necessary.
REFERENCES


