A holistic approach to penile incarceration in adult - A case report
Panigrahi MK, Mishra A

ABSTRACT
Engorgement of penis by encircling objects is an acute emergency. While in a child, it may be attributed to lack of reasoning and blunt innocence, in adults apart from accidents and direct trauma, a presentation like a metallic ring encircling penis can be attributed to abnormal sexual behavior. The authors hereby try to focus on holistic approach to management by reviewing the literature on both the surgical management and psychosocial approach.

Key words: incarceration injuries to penis, metallic ring, abnormal sexual behavior

INTRODUCTION
Penile strangulation is an extraordinary situation that requires urgent intervention due to its imminent complications. Quite a lot of cases have been reported in the medical literature, some of them describing serious injuries such as necrosis, gangrene, and amputation of the penis. Blunt trauma, amputation, avulsion injuries, bites, strangulation injuries, zipper injuries, miscellaneous injuries due to erection inducing devices, torture are generally chief causes of presentation of penile injuries to a casualty. A metallic ring around the penis is rare emergency presenting to emergency. While in a child, it may be attributed to lack of reasoning and blunt innocence, in adults it may be attributed to abnormal sexual behaviour. Psychologically, sexual behaviours serve to escape emotional or physical pain or are a way of dealing with life stressors. Placing a metal incarcerating device has been typically used for sexual enhancement. While many authors have focused on the surgical management, few work have been done so as to have a holistic approach to the case that includes psychological counselling and study of psychosocial factors attributed to it.

CASE REPORT
A 35 year old man, driver by profession presented to casualty with complaints of a metallic ring incarcerated at the root of the penis during attempted masturbation since three hours. There was gross penile edema and impaired penile sensation distal to the constriction and full bladder (Fig-1).

The nature of the metallic ring was such that removing it by cutting was difficult. The constricting steel ring (nut) was a spare part of an automobile. The dimensions were 35 mm in external diameter, 25 mm in internal diameter and 15 mm wide in thickness (Fig-2).
Manual decompression of the penis and remove the constricting ring failed. Another attempt using medication for decreasing the erection and hence facilitation of removal of the ring was also unsuccessful. The penis was grossly swollen and edematous distal to metallic ring visible at the peno-scrotal junction. The Penile pulsation was diminished, and corporacavernosum was compressed. Suprapubic aspiration was done first to empty the bladder. A bulbo-cavernosa shunt was done immediately after a circumcision and the ring was slowly removed under sedation and local anesthesia. The procedure took approximately thirty minutes to complete and was well tolerated. Following removal of the ring, the penis returned to its flaccid state. Penile sensation was intact and Foley's catheter was put in place. Patient had smooth post-procedure recovery hence was discharged after two days.

**DISCUSSION**

Erotic stimulation by the use of vacuum cleaners or electric brooms appears to be a common form of masturbation. A wide range of items are used by adult males for sexual gratification.

This patient used a steel nut which was actually a spare part of a truck similar to a metallic ring. The case throws light on emergency nature of intervention as well as focuses on the psychological aspect which is often neglected.

This patient was categorized as Grade 4. Treatment of urinary retention is a preliminary step. Grade 1 and 2 traumas are managed by Foley's catheter when the urethra is intact while supra-pubic catheterization is recommended for Grade 3 to 5 traumas. A grading scale for penile incarceration has been designed by previous studies. The challenge of the presentation of grades 1–3 is to remove the device without damaging the edematous tissue, prior to the onset of gangrene. Some authors have rightly pointed the difficulty in management dilemma in their first encounters. Treatment of penile incarceration is divided in to four groups. A time bound procedure is the focus of total management before the arterial flow is compromised. Grade 1 and Grade 2 requires multiple punctures of distal penis to facilitate its drainage and decompress it is the aspiration technique whereas glans drainage is by string technique already demonstrated by different authors. Wide tissue debridement with partial thickness skin graft are the surgical options reserved for Grade 4 and 5 injuries. Surgical management should not be delayed to avoid late complications. Prompt diagnosis and early treatment is essential to avoid the potential complications of ischemic necrosis and autoamputation.

The patient was from poor socioeconomic class, less educated, driver by profession and
addicted to alcohol. Further interaction with the patient during intervention revealed that he had used similar things in the past when sexual urge is high enough to think of any rational alternatives. This time he seek the help of emergency department because the metallic ring was impacted and could not be taken out by him, thus points towards the frequency of the abnormality in his sexual behaviour. The compulsive sexual behaviour was quite varied and included both paraphilic and non-paraphilic types. Compulsive masturbation is a type of non-paraphilic sexual behavior. Use of metallic rings for sexual gratifications can be a manifestation of compulsive sexual behavior. The absence of any specific material used for masturbation points towards the notion that anything that comes in hand during that urge can be used.

Various reports of penile strangulation in the literature describe a variety of foreign bodies on the penis which have one common thing and that is the property of circularity. Psychodynamic psychotherapy in compulsive sexual behaviors explores the core conflicts that drive dysfunctional sexual expression. Themes of shame, avoidance, anger, and impaired self-esteem and efficacy are common. Thus cases like this require individual therapy that focuses on reducing of controlling the abnormal sexual urge.

Family therapy further helps to restore trust, minimize shame/guilt, and establish a healthy sexual relationship between partners.

CONCLUSION

Penile strangulation should be accepted as a self induced emergency in the background of motive which is usually sexual or erotic in nature. It should be managed as an emergency in order to save the patient from complications ranging from mild non significant vascular obstruction to severe gangrene of the penis accompanied with impaired renal function. However while dealing with surgical intervention one also must focus on assess the developmental psychopathology which is the basis of this pattern of problematic abnormal sexual behaviours.

AUTHOR NOTE

Manoj kumar panigrahi, Associate Professor and consultant Urologist
Ashim Mishra, Assistant Professor, Forensic medicine;
(Corresponding Author):
Email: mishra.ashim@rediffmail.com
Sikkim Manipal University, Sikkim Manipal Institute of Medical Sciences, Gangtok, Sikkim
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