

Penile Incarceration with Two Rings: An Unusual Case Report

DAWOOD KHAN, IMRAN A KHAN, RUPESH GUPTA

ABSTRACT

Intentional use of constricting devices on penis to increase sexual performance and orgasm can lead to penile incarceration and severe consequences. Here, we report a case of 45-year-old men who presented to our Emergency Department with two rings on his penis, one of copper just

beneath the glans and one of coral at the base of the penis. These rings were successfully removed using plumber's hacksaw. We concluded that Use of non-electric cutting device like plumber's hacksaw can be simple and cost effective method to remove smaller or mid sized penile foreign objects.

Keywords: Foreign body, Non electric cutting device, Penile strangulation, Plumber's hacksaw

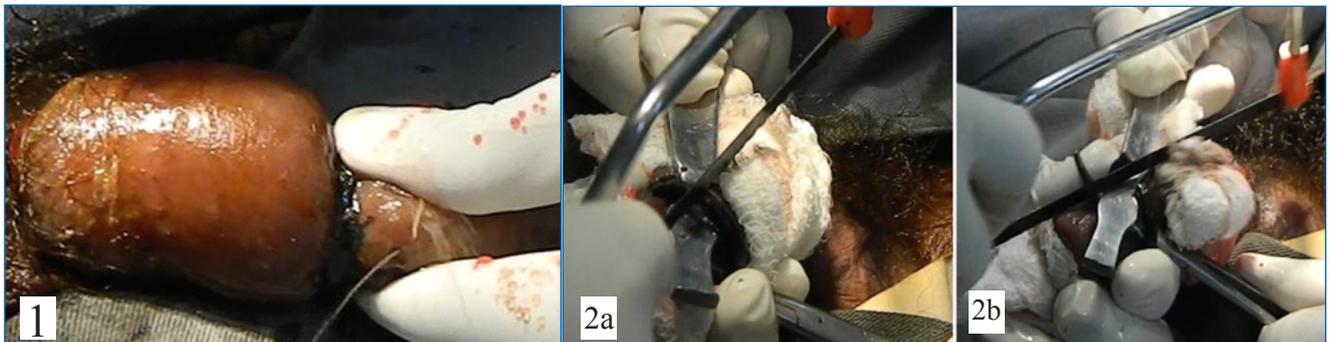
CASE REPORT

A married 45-year-old Muslim man presented to our hospital with acute urinary retention (4-5 hours) owing to incarceration of two rings. On examination, he was discovered to have two rings on his penis for around 6 hours, one of copper (internal diameter 3 cm, thickness 4 mm) just beneath the glans and one of coral (internal diameter 2.5 cm, thickness 2 mm) at the base of the penis [Table/Fig-1]. The penis was oedematous and tender. The glans was dusky pink in colour but not obviously ulcerated or gangrenous. He was systemically well without any symptoms of renal failure or sepsis. He had tried several times to remove these rings himself, but was unsuccessful. No history of deviant sexual behaviour or mental illness was obtained. He was non-diabetic, had no prior urological disorder, but had circumcision (*Khatna*), a recommended

practice in Muslim tradition.

Attempts at urinary catheterisation using Foley's 14 Fr and 10 Fr catheters were unsuccessful. Preoperative doses of antibiotics were administered and the patient was taken to the operating room. Under subarachnoid block, the remaining preputial skin (post-circumcision) was punctured with a needle several times and the oedema fluid drained by compression [Table/Fig-1]. The same procedure was done on the corporeal skin. Although, the obvious oedema was much lessened, the rings could not be slipped off.

A jeweller's ring cutter was used in an attempt to cut and remove the rings. The material of the rings proved too hard for the purpose. A plumber's hacksaw mounted on a handle was tried next, with continuous cold saline irrigation on the blade to prevent heating and ensuing burns. The copper ring could be cut by this instrument while lifting the ring off



[Table/Fig-1]: Rings around penis with oedema fluid drainage. **[Table/Fig-2a,b]:** Removal of rings using Farabeuf's periosteum elevator and plumber's hacksaw

the penis using a Farabeuf's periosteum elevator and a pair of Spencer-Wells' artery forceps crossed beneath the ring [Table/Fig-2a,b]. The coral ring was also removed using the same technique.

An attempt at catheterisation using a 16 Fr Foley catheter was made next and was successful without much resistance. The penile skin was found denuded at the sites of ring impaction [Table/Fig-3] and was left to heal by second intention. Patient was discharged on day 3 in an excellent condition. Patient followed-up on day 7 and day 16 and was doing well.



[Table/Fig-3]: Appearance of penis after retrieval of the rings.

DISCUSSION

Penile incarceration or strangulation injuries have been reported worldwide [1], which requires emergency urologic management to prevent localised oedema, superficial ulcers, and skin loss. The objects usually used for penile entrapments are rings, nuts, bottles, sockets and rubber bands, which are intentionally used to increase sexual performance and orgasm [1].

Several techniques have been reported to successfully remove the foreign objects involved in penile incarceration [1-6]; however, there is no standard technique, owing to the diverse nature of clinical presentation with varied devices. Here, we report our experience of managing an unusual case of penile incarceration with two rings (copper and coral ring).

Entrapment of penis with foreign objects is accidental or intentional. Intentional use of such objects (rings or constricting bands) reduces venous return and helps maintain erection and sexual performance. Penile entrapment if not treated on time or left untreated can result in ischaemia, necrosis, and sometimes amputation of the penis. Complications reported following penile incarceration or strangulation urinary retention, ulceration, desquamating epithelium, urethral stricture, fistulas, priapism, gangrene, and autoamputation [7]; however, these depend on the time, extent, object of incarceration. In the present case, patient reported with urinary retention.

Foreign objects used are of two types, metallic or non-metallic. Non-metallic objects are comparatively easy to remove; however, metallic objects have challenges and difficult to remove. Insertion of foreign object on flaccid penis or on semi erect penis may lead to inability to remove them after erection and usually lead to oedema. Additionally, due to oedema patients attempts to remove these objects are generally unsuccessful and end in emergency hospital visits.

Several techniques have been reported to remove foreign objects leading to penile incarceration [1]. These include string technique, non electric cutting devices and electric cutting devices. The electric cutting devices like Dremmel rotating saw, dental and diamond drills, oscillating saws etc., are motorised saws and drills. The choice of technique generally depends on the grade of injury [8], material of the foreign object, availability of instruments and the urologists experience with these tools. In our case, spring technique was not deemed suitable due to placement of two rings at two different locations; hence non-electric cutting technique was considered as first choice. We used jeweller's ring cutter followed by plumber's hacksaw and both the rings were successfully removed by plumber's hacksaw.

It is strongly recommended that when cutting any foreign object around the penis, supporting instruments should be used to protect penile skin from any iatrogenic injury [1]. In our case we used, Fahrabeuf's periosteum elevator and a pair of Spencer-Wells' artery forceps that helped to protect injury while cutting and provided base during the procedure. Additionally, we used continuous cold saline irrigation that prevented heating and thermal injury.

CONCLUSION

Though, penile incarceration or strangulation injuries are uncommon emergency urologic management can prevent complications. Use of non electric cutting device like plumber's hacksaw can be simple and cost effective method to remove smaller or mid sized penile foreign objects.

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AUTHOR(S):

1. Dr. Dawood Khan
2. Dr. Imran A Khan
3. Dr. Rupesh Gupta

PARTICULARS OF CONTRIBUTORS:

1. Senior Resident, Department of Urology, R.G. Kar Medical College and Hospital, Kolkata, West Bengal, India.
2. Senior Resident, Department of Urology, R.G. Kar Medical College and Hospital, Kolkata, West Bengal, India.
3. Senior Resident, Department of Urology, R.G. Kar Medical College and Hospital, Kolkata, West Bengal, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Dawood Khan,
Senior Resident, Department of Urology,
R.G Kar Medical College, Khudiram Bose Sarani,
Shyaam Bazar, Kolkata-700004, West Bengal, India.
E-mail: dk.onco@gmail.com

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