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Original Research Paper

General Surgery

REMOVAL OF A PENOSCROTAL CONSTRICTING METAL RING

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ABSTRACT Placement of constricting metal ring around the penis and scrotum for erotic or autoerotic purposes represents a well-known challenge for surgeons and can result in dangerous complications like ischemia and necrosis. To avoid such complications, early and appropriate treatment should be preferred. The removal of a such metal ring can be difficult and often requires resourcefulness and a multidisciplinary approach. We report a successful removal of a penoscrotal constricting metal ring in a 47 years old male patient using an electric angle grinder under spinal anesthesia.

KEYWORDS : Constricting metal ring, Electric angle grinder, Penoscrotal strangulation

INTRODUCTION

Penoscrotal entrapment with a metal ring can present as a challenging case in an emergency surgical department. These constricting metal rings are placed on the penis for various reasons. In adults, they are placed for erotic or autoerotic purposes while in children for the prevention of enuresis [1]. A constricting metal ring around the penoscrotal region initially results in venous obstruction and congestion leading to an increase in penile turgor and prolonged erection. If this constricting ring remains for a longer duration, there will be blockage of the venous return initially causing penile swelling and progressively leading to the lymphatic and arterial obstruction which may result in penile ischemia or incarceration.

We report a successful removal of a penoscrotal constricting metal ring in a 47 years old male patient using an electric angle grinder under spinal anesthesia.

Case report

A 47-year-old male patient with no significant medical and psychiatric history presented to casualty with 48 hours history of the strangulated penoscrotal region with a metal ring (Figure 1). He was sexually assaulted by 3-4 people after giving him some unknown substance that made him drowsy. He was looted and sexually assaulted with the insertion of a metal ring around the penoscrotal region. On examination, a thick metal ring was noted at the base of the penoscrotal region with distal gross edema over the penis and scrotum. The diameter of the metal ring was 4.5 centimeters, its breadth was 1 centimeter, its thickness was 0.5 centimeter and its weight was 120 grams (Figure 2).

The patient was immediately prepared for an emergency operation for the removal of a metal ring under spinal anesthesia. First, we tried the use of orthopedic instruments like wire cutter and saw to break the ring. But we were unable to remove the ring using these instruments. Therefore, the intraoperative decision was taken to remove the ring with an electric angle grinder, and a person expert in using an angle grinder was called into the operation theatre. The metal ring was successfully removed using a grinder without causing damage to surrounding tissue after the placement of a malleable metal plate between the ring and penile base (Figure 3). On postoperative day 1, edema over the penis and scrotum decreased significantly and by end of 1 week, it was resolved completely (Figure 4).

DISCUSSION

Penoscrotal strangulation presents as an emergency usually brought on by the patient for the enhancement of sexual function[2]. The patient usually comes to the hospital late due to embarrassment. Urgent treatment is required which is nothing but prompt removal of constricting ring to allow for the return of blood flow and relief of urinary obstruction. Early removal of the ring will limit ischemia and subsequent sequelae of necrosis and loss of function, that is erectile and urinary function.

In our case, we used multiple tactics and a variety of tools for the removal of the metal ring. We suggest the involvement of other individuals such as orthopedics, maintenance department, or even emergency or fire personnel for their knowledge of tools foreign to surgeons. Mechanical methods of ring removal should be preferred over electrical/ thermal devices to reduce the possibility of injury to surrounding tissue[3].

Figure 1: Penoscrotal strangulation with a metal ring

Figure 2: metal ring

Figure 3: Metal ring cutting with grinder

Figure 4: Postoperative day 7 picture

Penile strangulation was first reported in 1755. It is an uncommon clinical condition and can lead to mild to severe penile injury with impaired kidney function[4]. Patients presenting with incarceration are more likely to sustain a higher grade of injury. Therefore, early diagnosis and prompt treatment are essential in such cases to avoid complications of ischemic necrosis and auto amputation. However, if the penis or scrotum becomes necrotic or gangrenous, degloving or amputation may be indicated depending on the extent of devitalized tissue[5].

CONCLUSION

This case indicates the successful use of an electric angle grinder to remove a penoscrotal constricting metal ring in a 47 years old male patient 48 hours after placement. Penile incarceration is an emergency with potentially severe clinical complications. Treatment often requires resourcefulness and a multidisciplinary approach.

Conflict of interests

The authors declare no conflict of interest. No funding was received for this.

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