

Strangulating Penile Ring: A Case Report

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ABSTRACT

Background: *Strangulating penile ring is a rare urological emergency with no standard guidelines on how to remove them.*

Objective: *This is to report a case of strangulating penile ring and the challenges faced during attempts at removing the ring.*

Method: *A case report of strangulating metal penile ring in a patient who presented at the Nnamdi Azikiwe University Teaching hospital, and relevant review of literature.*

Result: *The ring was removed by the string method.*

Conclusion: *The use of the string method as a starting point in cases of strangulating penile ring is recommended.*

Key words: *strangulating penile ring Nigeria.*

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INTRODUCTION

Strangulation of the penis by a trapped penile ring is a rare urological emergency which may task the ingenuity of the urologist when they do present. Reported cases in the literature are as case reports or case series, thus there is no standard guideline on the management.¹⁻¹⁰ It could be acute or chronic.¹⁻¹⁰ The motive surrounding insertion of ring on the penis varies in children and adults. In children, strangulating materials are put to chastise them for enuresis and incontinence, and as punitive measure for masturbation.⁴ In adults on the other hand, it is mainly for erotic reasons in normal, psychiatric and parkinsonism patients and also to prevent unnecessary erection and ejaculation at night.^{1-3, 5-10} Parkinsonian patients have long been known to have hypersexuality / exhibitionist problems, possibly arising from the use of dopaminergic agents.¹¹

Recently, it has been appreciated that one of the modes of presentation of this hyper-sexuality could be a strangulating penile ring.² Penile strangulation by a non-metallic ring or a thin metallic ring is easily relieved by cutting the object, but a heavy metal ring causing penile strangulation is very difficult to remove because of the heavy equipment needed and the inherent danger of causing more injury to the patient.

We report a case of strangulating penile ring and the challenges faced during attempts at removing the ring.

Case presentation

Mr. A.U, a 42 year old Nigerian welder who is a known psychiatric patient, presented to the Accident and Emergency Unit of the Nnamdi Azikiwe University Teaching Hospital (NAUTH) in company of his wife, with a four-day history of a ring trapped in the penis and a 3-day history of painful penile swelling. The ring was inserted by the patient but the reason for inserting the ring could not be ascertained. Examination showed a metal ring bearing at the base of the penis. Penis was engorged distally measuring 6cm in diameter, shiny, tense with no differential warmth, and abraded skin around the ring. A diagnosis of strangulating penile ring was made and the patient was given analgesics and antibiotics. Attempt at removing the ring with a bone cutter was unsuccessful. Application of various cutting devices in collaboration with personnel from the works department of the hospital, who were invited, was also unsuccessful. It was then decided to try the string method using infusion giving set tubing under general anaesthesia. This was wound tightly round the penis distal to the metal ring and the proximal end of the tubing passed through the lumen of the ring while unwinding the tubing from the proximal end. The ring gliding over the tubing slowly slipped off the penis. The case before, during and after the procedure are shown in figures I, II and III respectively. The ring measured 30mm in diameter, 4mm in thickness and 5mm in width. Following the removal of the penile ring, the abrasions were cleaned with antiseptic solution and dressed with vaseline gauze. The condition of the patient post-operatively was stable and satisfactory till patient absconded from the ward on the 3rd post-operative day.

Figure I



Figure II



Figure III



DISCUSSION

Various studies have shown that though this is a urological emergency, it may require a multidisciplinary action involving the orthopaedic surgeons, the members of the works department and occasionally the fire service men for treatment.^{7, 8} This is because the culprit materials are myriad and range from thread, hair, rubber band, wedding ring, engine bearing, bullock, hammerhead, bull ring, plastic bottle and metal plumbing cuff and these will require different strengths of cutting devices, if cutting is the preferred action¹⁻¹⁰. Successful ways of removing the rings include cutting, string method and its variant, and surgery.¹⁻¹⁰

The consequences of placing a strangulating penile ring range from mere oedema to bruises, abrasion urethral injury, urethral stricture, urethral fistula, retention of urine, post obstructive diuresis, lymphoedema, gangrene of penis to penile amputation.¹⁻¹⁰ These adverse consequences could be caused by the ring itself or attempts at removing them. Thus, the principle of management involves safe removal of the ring without causing further injury to the penis.

Since there is no established guideline on management, the natural instinct, evident from the reviewed literature is to resort to a cutting device.^{2, 3, 7, 8} This is not readily available in the regular theatres, especially for heavy metal rings.⁷⁻⁹

It took the time honoured string method about 45minutes to remove the ring that we could not remove in more than 4 hours of trying various cutting devices. We only succeeded in causing more injuries to the patient by these other methods. We hereby recommend the use of the string method, especially where it is difficult to get a suitable cutting device.

CONCLUSION

The time honoured string method an effective and we advocate that it becomes the starting point for treatment especially when a suitable cutting device is not readily available and the penile skin is still viable.

REFERENCES

1. Lopes RI, Lopes SI, Lopes RN. Chronic Penile Strangulation. *Int Braz J Urol.* 2003; 29: 327-329.
2. Pinggera GM, Pichler R, Rehder P, Kerschbaumer A, Buttazzoni A, Zangerl F, Mitterberger M. Penile Strangulation in a Patient with Parkinson's Disease: A case report *Cases Journal.* 2009; 2:9379.
3. Silberstein J, Grabowski J, Lakin C, Goldstein I. Penile Constriction Devices: A case Report, Review of the Literature, and Recommendations for Extrication. *J Sex Med.* 2008 Jul;5(7):1747-1757.
4. Gultekin EY, Ozdamar AS, Gokalp A, Ozkurkcugil C, Ucar C. Penile Strangulation Injuries *Pediatr Surg Int.* 1996;11:279-280.
5. Noh J, Kang TW, Heo T, Kwon DD, Park K, Ryu SB. Penile Strangulation Treated with the Modified String Method. *Urology.* 2004;64(3):591.
6. Osman M, Al Khadi H, Al Hafi R. Gangrene of the Penis due to Strangulation by a Metallic Ring. *Scandinavian Journal Urology and Nephrolog.* 1996: 30 (1) : 77-78.
7. Ooi CK, Goh HK, Chong KT, Lim GH. Penile Strangulation: Report of Two Unusual Cases. *Singapore Med J.* 2009;50(2): e50-e52.
8. Perabo FGE, Steiner G, Albers P, Muller SC. Treatment of Penile Strangulation caused by Constricting Devices. *Urology.* 2002; 59 (1):1371313715.
9. Xu T, Gu M, Wang H. Emergency Management of Penile Strangulation: A Case Report and Review of the Chinese Literature. *Emerg. Med. J.* 2009;26;73-74.
10. Taweemonkongsap T, Soontrapa S. Treatment of Penile Incarceration: A Case Report (String Method). *Siriraj Hosp Gaz.* 1999; 51(5):374-377.
11. Cannas A, Solla P, Floris GL, Serra G, Tacconi P, Marrosu MG et al. Aberrant Sexual Behaviours in Parkinson's Disease during Dopaminergic Treatment. *J Neurol.* 2007; 254(1):110-112.