

Long-term penile incarceration by a metal ring resulting in urethral erosion and chronic lymphedema

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A patient presented with a metal ring around the base of his penis. The ring had been placed 3 years prior to presentation. Intra-operative findings revealed a ventral erosion with complete transection of the urethra and

massive fixed lymphedema of the penile skin distal to the ring. Treatment consisted of removal of the ring with metal shears and bolt cutters. Small reduction of the edema was seen 3 months following removal, and the patient refused further treatment. The most interesting part of the outcome was the preservation of penile urethral voiding although intromission was not possible.

Key Words: penis, urethra, foreign bodies

Introduction

Incarceration of the penis by rings and encircling foreign bodies is seen periodically by the urologist.¹ Constricting bands of a variety of materials have been placed around the penis for sexual curiosity and play, during intoxication and as a result of erotic impulses, mental illness and borderline personality disorder.² In the few cases where difficulties arise, a urologist is sought out when the patient fails to remove the ring.

Usually, a ring with an inadequate opening mechanism or method of removal over the erect penis will produce acute vascular congestion, edema and penile enlargement in a few hours. If left for a prolonged period of time ulceration and necrosis can occur. We report a case that is extreme with regard to the length of time of penile incarceration and the consequences of long-term entrapment.

Case report

A 65 year-old man was assessed in the urology clinic for removal of a penile ring. The patient stated that he was intoxicated at a party over a year previously and had passed out. A ring was clamped around his penis while unconscious and he was subsequently

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Figure 1. Lateral view of penis with metal ring around base.

unable to remove the ring. He had progressive swelling of his penis since that time and decided that he should have it removed. On presentation he had no pain, and no irritative or obstructive urinary tract symptoms. On examination a rusty metal ring was seen around the base of the penis with massive fixed penile lymphedema distal to the ring. Figure 1 The patient refused the initial offer of simple removal of the ring and was lost to follow-up. He presented again 2 years later with more exaggerated findings and agreed to surgical removal and examination with a view to repair. Arrangements were made to remove the ring under spinal anesthetic in the operating room. A steel ring with hinge that had corroded shut was removed with metal shears and bolt cutters. Erosion of the penile shaft was noted circumferentially. Flexible cystoscopy revealed penile urethral erosion with complete transection of the pendulous urethra. Figure 2.



Figure 2. Ventral view of penis with cystoscope traversing the urethral defect.

Clinic follow-up 3 months later demonstrated small but definite reduction in the extent of the edema distally. The urethral erosion site appeared to be healing. Remarkably, he was voiding through the end of the penis, the lymphedematous penis appeared to be holding the two halves of the urethra together in a watertight fashion. He commented that if he held his penis up during voiding he leaked out of the erosion site. Intromission was not possible. Further management options for sexual dysfunction, and penile and urethral reconstruction were presented to the patient but he preferred to leave things as they were and he was discharged from clinic.

Discussion

The prolonged period of time that this ring was lodged on the proximal penile shaft led to massive lymphedema and erosion of the ventral urethra. Although the literature regarding acute incarceration and strangulation of the penis with foreign bodies is extensive,² examples of prolonged penile incarceration by foreign bodies are rare. Colby³ mentioned a case of 3 months duration and cited two other cases in their review of the literature, one existing for 2 years and one for 14 years. Stuppler et al⁴ report a case of incarceration lasting over 20 years treated eventually with partial penectomy. Our case illustrates the consequences of chronic incarceration of the penis by a penile ring including urethral erosion and lymphedema. It is further interesting that normal meatal voiding has been preserved and the patient tolerates a deformity that precludes intromission. □

References

1. Perabo FGE, Steiner G, Albers P, Muller SC. Treatment of penile strangulation caused by constricting devices. *Urology* 2002;59:137xiii-137xv.
2. van Ophoven A, deKernion JB. Clinical management of foreign bodies of the genitourinary tract. *The Journal of Urology* 2000;164:274-287.
3. Hoffman HA, Colby FH. Incarceration of the penis. *The Journal of Urology* 1945;54:391.
4. Stuppler SA, Walker JG, Kandzari SJ, Milam DF. Incarceration of penis by foreign body. *Urology* 1973;2:308-309.