Penile strangulation due to a metal ring: A case report

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ABSTRACT

Introduction: Penile strangulation is a condition in which a foreign material compresses the penis, resulting in penile enlargement due to a circulatory disturbance.

Case Report: A 68-year-old male patient was referred to our hospital in order to undergo the removal of a metal ring that had strangled his penis. The ring was successfully removed using an airtime cutter. His penis showed no ischemic lesions at one week after removal.

Conclusion: We herein report a rare case of penile strangulation.

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CASE REPORT

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Keywords: Strangulation, Incarceration, Penile

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Matsumiya K¹, Kawahara T^{1,2}, Yamashita Y², Hayashi Y^{2,1,3}, Shimokihara K¹, Tsutsumi S¹, Takamoto D¹, Mochizuki T¹, Hattori Y¹, Teranishi J¹, Miyoshi Y¹, Yumura Y¹, Yao M³, Uemura H¹

Affiliations: ¹Departments of Urology and Renal Transplantation, Yokohama City University Medical Center, Yokohama, Japan; ²Department of Dental Surgery, Yokohama City University Medical Center, Yokohama, Japan; ³Department of Urology, Yokohama City University Graduate School of Medicine, Yokohama, Japan.

Corresponding Author: Takashi Kawahara, M.D., Ph.D, Departments of Urology and Renal Transplantation, Yokohama City University Medical Center, Yokohama, Japan; Email: kawahara@yokohama-cu.ac.jp

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INTRODUCTION

Penile strangulation is a condition in which a foreign material compresses the penis, resulting in penile enlargement due to a circulatory disturbance [1]. We herein describe a case of penile strangulation due to a metal ring that the patient had worn to the reduce pain of varicocele.

CASE REPORT

A 68-year-old male was referred to our hospital with an enlargement of his penis due to a metal ring. He had been inserting his penis into a metal ring to reduce the pain associated with varicocele for ten years. Three hours before his initial visit, he could not remove this ring and experienced difficulty in urination (Figure 1). To treat his condition, the patient was referred to our hospital at six

Figure 1: Penile strangulation by a metal ring.

hours after penile strangulation. We initially attempted to remove the ring using a ring cutter and wire cutter; however, this failed to cut the ring. We then asked a dental surgeon to cut the ring using an airtime cutter. The ring was successfully cut and removed from his penis (Figures 2 and 3).

Figure 2: The metal ring after removal.

Figure 3: One week after removal.

DISCUSSION

Penile strangulation is caused when an object compresses the penis. In most cases, the removal of the foreign body is difficult because of priapism in the external penis. Penile strangulation represents an emergency disease, as the compression of the penis for an extended period of time interrupts the blood flow, resulting in penile ischemia [1].

In previous reports, the strangled penile body was divided by soft and hard materials. Rubber and vinyl have been reported as soft materials, while metal rings, metallic pipes, and the tops of PET bottles have been reported as hard materials. Soft materials compress the skin deeply, with ulceration occurring in severe cases. Hard materials first lead to edema rather than ulceration. The duration of strangulation in the previously reported cases has ranged from one hour to ten years [1].

In the present case, the patient had strangled his penis in order to reduce the pain associated with varicocele. Previous reports showed that the reasons for penile strangulation were divided into non-sexual and sexual

purposes. The sexual purposes have included (but are not limited to) improving energy, extending erection time, and enlarging the penis [2]. The duration of strangulation varied according to the reasons. The patients in whom penile strangulation occurred due to non-sexual reasons presented to hospital earlier than the patients in whom the purpose was sexual [3]. In this case, the patient performed penile strangulation for a therapeutic reason. The patient presented to a hospital in the early stage of penile strangulation, after experiencing difficult urination. We have to remind that inappropriate usage of foreign bodies resulting in penile strangulation.

The removal of the object strangling the penis is the most important aspect of treatment in cases of penile strangulation. A previous report suggested that the object can be removed at up to 12 hours without any complications [1]. In our case, the rapid removal might have contributed to the lack of any complications. Instruments that have been used in removal have included pincers, a plaster cutter, a hammer, and a grinder [4–6]. However, air turbines for dental use are most frequently used to remove such objects [5]. The top of the air turbine is coated with diamonds and spins at a rate of 400,000 times per minute, which gives it a high cutting ability. Water can be poured to reduce the frictional heat and improve the safety of the procedure—as we did in our case [7]. When standard procedures including the use of a ring cutter fail to cut the object, the use of an air turbine with the assistance of a dental surgeon is sometimes necessary [8]. Followed-up is needed to confirm no ischemia after removal of metallic ring.

CONCLUSION

We herein describe a case of penile strangulation due to a metal ring that the patient had worn to reduce pain of varicocele. The removal of the object strangling the penis is the most important aspect of treatment in cases of penile strangulation.

Author Contributions

Kentaro Matsumiya – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Takashi Kawahara – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Yosuke Yamashita – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Yutaro Hayashi – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Kota Shimokihara – Analysis and interpretation of data,
Revising it critically for important intellectual content,
Final approval of the version to be published
Sohgo Tsutsumi – Analysis and interpretation of data,
Revising it critically for important intellectual content,
Final approval of the version to be published
Daiji Takamoto – Analysis and interpretation of data,
Revising it critically for important intellectual content,
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Taku Mochizuki – Analysis and interpretation of data,
Revising it critically for important intellectual content,
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Yusuke Hattori – Analysis and interpretation of data,
Revising it critically for important intellectual content,
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Jun-ichi Teranishi – Analysis and interpretation of data,
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Yasushi Yumura – Analysis and interpretation of data,
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Masahiro Yao – Analysis and interpretation of data,
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Hiroji Uemura – Analysis and interpretation of data,
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Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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REFERENCES

1. Martínez-Piñeiro L, Djakovic N, Plas E, et al. EAU guidelines on urethral trauma. *Eur Urol* 2010 May;57(5):791–803.
2. Tanabe N, Muya M, Isonokami M, Kozuka T, Honda T, Ohtani H. Lymphedema due to chronic penile strangulation: A case report. *J Dermatol* 1996 Sep;23(9):648–51.
3. Tomonori Kato TK, Ikeda R, Nakamura T, Akakura K, Hikage T. Penile strangulation: A case report. *Jpn J Urol Surg* 2003;16(5):613–5.
4. Vähäsarja VJ, Hellström PA, Serlo W, Kontturi MJ. Treatment of penile incarceration by the string method: 2 case reports. *J Urol* 1993 Feb;149(2):372–3.
5. Sinha BB. Penile incarceration by a metallic object. *Br J Surg* 1988 Jan;75(1):33.
6. Theiss M, Hofmockel G, Frohmüller HG. Fournier's gangrene in a patient with erectile dysfunction following use of a mechanical erection aid device. *J Urol* 1995 Jun;153(6):1921–2.
7. Noh J, Kang TW, Heo T, Kwon DD, Park K, Ryu SB. Penile strangulation treated with the modified string method. *Urology* 2004 Sep;64(3):591.
8. Koji Okihara KS, Miyashita H. Incarceration of the penis: A case report. *Jpn J Urol Surg* 2002;15(5):579–82.

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