

The Queen Elizabeth Tuck Technique - A Novel Technique For Removal Of A Strangulating Penile Ring.

C Brumfitt, A Jay, C Ooi, V Saren, E Tho, N Parker, M Lloyd, J Miller, D Spernat

Citation

C Brumfitt, A Jay, C Ooi, V Saren, E Tho, N Parker, M Lloyd, J Miller, D Spernat. *The Queen Elizabeth Tuck Technique - A Novel Technique For Removal Of A Strangulating Penile Ring.* The Internet Journal of Urology. 2012 Volume 9 Number 3.

Abstract

Penile strangulation is a urological emergency. It occurs most commonly secondary to an external device such as a penile ring used for sexual gratification. Prompt and safe removal is of the utmost importance. Herein we discuss 'The Queen Elizabeth Tuck Technique' of removing a penile ring. We have found this technique superior to previously described methods as it avoids the need for more invasive procedures. Furthermore the device can be removed expediently preventing additional ischemic injury and with minimal damage to the skin.

INTRODUCTION

Strangulation of the penis is an uncommon [1] urological emergency requiring prompt diagnosis and management in order to avoid the complications of ischemic necrosis and auto-amputation. It can present with varying clinical scenarios depending on the degree of vascular obstruction; from insignificant, easily-reversible obstruction to severe gangrene and the accompanying complications [1]. In order to avoid these severe complications, every attempt at prompt removal of the strangulating device needs to be made [2-4].

This case report details 'The Queen Elizabeth Tuck Technique' used to remove a large metallic ring lodged at the base of a young patient's penis. This technique is efficacious even with severe oedema. Furthermore it is time efficient.

CASE REPORT

A 29-year-old welder presented to the Emergency Department of the Queen Elizabeth Hospital complaining of swelling and discolouration of his penis. On further questioning, the patient revealed that he had placed a large metallic ring around the base of his penis 16 hours earlier. He admitted to doing this regularly for the past 9 years as a method of sexual gratification. On this occasion he had placed the ring around his penis, but had then fallen asleep. On waking, he discovered his penis was very swollen and discoloured, and when he was unable to remove the device himself, he presented to the Emergency Department.

Examination in the Emergency Department revealed a

discoloured and grossly engorged (approximately 6cm in diameter) penis with a thick metallic device at the base. The metallic ring measured 4cm in diameter with an inner diameter of only 2.5cm (figure 1-3). The skin beneath the device was macerated, presumably from the multiple attempts at removal. The patient reported voiding the previous evening and was not in urinary retention. The Emergency Department Physicians attempted to reduce the penile swelling by application of ice, sugar and compression with minimal results.

Figure 1

Figure 1. Penile Ring demonstrating overall and internal diameter



Figure 2

Figure 2. Depth of penile ring.



Figure 3

Figure 3. Width of Penile ring.



The Urology Team was consulted to remove the device. A ring-cutter was unable to be used due to the width of the ring. Additionally, previous discussion with the Fire Department had advised against the use of the diamond tip saw as this may lead to major vascular or soft tissue injury of the penis.

A penile block using 1% Lignocaine, as well as multiple doses of IV Fentanyl was administered for analgesic control. Further attempts at compression continued over the next hour. These attempts produced a minimal reduction in the penile swelling with very little distal movement of the device.

It was decided to attempt to remove the device by using an adaptation of the 'modified string method' [1]. The fragile

nature of the patient's skin as well as the severe oedema precluded the use of thin strings or guide wires. Two large Penrose drains were substituted for the guide wires providing a wide base along which the device could be "shimmied" up the penis and thereby minimising any further damage to the skin. They were also useful in reducing and evenly displacing the oedema.

The 'Queen Elizabeth Tuck Technique' is a two-person technique involving the insertion of 2 large Penrose drains on either side of the penis – between the device and the skin. Lubrication was liberally applied. Both ends of the drain were gripped firmly in one hand of each operator providing constant traction at 90 degrees to the device. One operator then uses their contra-lateral hand to shimmy the device distally. Simultaneously, the oedematous skin was systematically 'tucked' beneath the device by the second operator using their contra-lateral hand. The device was removed within ten minutes without the need for puncture of the skin.

After removal of the device, the patient underwent an MRI scan to determine if the corpora cavernosa were ischemic. Unfortunately the patient's profession as a welder resulted in many minute fragments of metal being embedded within his skin. These heated up during the procedure causing intolerable discomfort. The MRI was terminated before a result was available.

The patient was transferred back to the Emergency Department where he self-discharged shortly afterward.

CONCLUSION

Penile strangulation is a Urological emergency and prompt removal is paramount. Variables such as time, type of device and extent of skin damage need to be taken into account when removing the device. We believe that the Queen Elizabeth Tuck Technique improves upon previously described removal methods as it allows more even distribution of sheering forces when removing the constrictive device. This, in turn, reduces the risk of damage to the engorged penile skin and allows prompt removal of the device.

References

1. Novel Extraction Technique to Remove a Penile Constriction Device. Katz DJ, Chin W, Appu S, Harper M, Vukasin F, Tay YK, Pang C, Dowling C. J Sex Med. 2012 Jan 16. doi: 10.1111/j.1743-6109.2011.02598.x.
2. Noh J, Kang T, Heo T, Kwon D, Park K, Ryu S. Penile strangulation treated with the modified string method. Urology 2004;64:591.e33–591.e34.

3. Chang SJ, Chiang IN, Hsieh JT, Liu SP. Extrication of penile constriction device with corpora aspiration. J Sex Med 2009;6:890–1, author reply 91–2.

4. Eaton SH, Dickstein RJ, Wiygul JB. Novel use of the Gigli saw for management of penile entrapment. J Sex Med 2009;6:595–7.

Author Information

Christine Brumfitt, M.B., Ch.B.

Urology Resident, The Queen Elizabeth Hospital

Alexander Jay, M.B., B.S.

Urology Registrar, The Queen Elizabeth Hospital

Chong Chien (John) Ooi, M.B., B.S., M.S., MBU, MRCS, FRCS (Urol.)

Urology Fellow, The Queen Elizabeth Hospital

Vikramjit Saren, M.B., B.S., M.S., MBU, FRCS (Urol.)

Urology Fellow, The Queen Elizabeth Hospital

Eugene Tho, M.B., Ch.B.

Urology Resident, The Queen Elizabeth Hospital

Natalie Parker, BNsg

Urology Clinical Practise Consultant, The Queen Elizabeth Hospital

Mark Lloyd, M.B., B.S., FRACS (Urol.)

Consultant Urologist, The Queen Elizabeth Hospital

John Miller, M.B., B.S., FRACS (Urol.)

Consultant Urologist, The Queen Elizabeth Hospital

Dan Spernat, M.B., B.S., FRACS (Urol.)

Consultant Urologist, The Queen Elizabeth Hospital