On-line Case Report

Penile skin necrosis – complication following self-circumcision

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Circumcision is one of the commonest operations performed throughout the world for ritual, traditional or medical reasons. Self-circumcision may lead to disastrous complications. There have been reports of the complications following use of the constricting devices for improved sexual performance and for auto-erotic intentions, but cases of self-circumcision leading to complications such as necrosis of the penile skin and strangulation of the penis are very rarely reported. This case represents penile skin necrosis in a 55-year-old white English man following an attempt at self-circumcision with a medically unapproved plastic device available in the market. He recovered after surgical debridement and treatment with antibiotics.

Key words: Penile skin necrosis – Plastic device – Self-circumcision – Penile strangulation

Penile constricting devices such as metallic and non-metallic rings, nuts, bushes and sprockets, which are medically unapproved, are intentionally placed over the penis by an individual for masturbation or by his partner for improved sexual performance or for auto-erotic intentions. Complications in the form of strangulation of the penis or necrosis of the penile skin following self-circumcision have been reported very rarely in the English literature. In the case presented here, the patient himself applied a medically unapproved plastic device available on the market for self-circumcision. However, he developed necrosis of the penile skin, which needed surgical debridement. Though it is strongly recommended to have circumcision performed by medically trained personnel or a urologist, this case illustrates a very rare, self-circumcision-induced penile skin necrosis in the UK where healthcare is easily and freely available to all residents.

Case report

A 55-year-old, white, English male presented to the accident and emergency department with complaints of blackening of the penile skin. He was referred to our general surgical team for further management. The previous week he had attempted to circumcise himself using a plastic device with clamp available commercially (Fig. 1). When we saw him first, he said: 'Sorry doctor, I should not have done this, now I am repenting'.¹ History revealed that there was no psychological problem; he just wanted to get it done and thought that it could not be performed under the UK National Health Service (NHS). There was no genuine medical reason for circumcision. He had no other medical problems. He applied the plastic device with clamp on the penis while his wife was away for a week.¹ He removed the clamp from the penis without any problem. After 3 days, he noticed some

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Figure 1. Plastic, disposable self-circumcision device.

residual foreskin at the site of clamp, which was becoming erythematous and swollen with pus discharge. On the day of presentation, he was afebrile and haemodynamically normal. Local examination revealed the swollen penis with a circumferential necrotic skin patch with pus discharge at the site where he applied the clamp and at the site of excision of foreskin, which was more proximal than that in formal circumcision (Fig. 2). He was started on intravenous augmentin immediately after a pus swab was taken for microscopy, culture and antibiotic sensitivity analysis. Blood investigations did not reveal any abnormality. After thorough discussion and consent, the patient was taken to theatre. Under general anaesthetic, the necrotic patch over the penis was excised circumferentially followed by primary closure of the penile skin according to the patient's wishes. He was discharged 2 days after operation on oral antibiotics for 5 days. The pus swab result indicated the presence of pus cells and heavy growth of *Staphylococcus aureus*. Five days after surgical intervention, he presented to casualty with disruption of the stitches. The patient was discharged without any intervention, allowing the condition to heal secondarily. On follow-up, the penile skin had healed but he still had a painful erection. During follow-up visits, he denied any further interventions for this.

Discussion

Circumcision is one of the commonest operations performed throughout the world for ritual, traditional or medical reasons. Though it is strongly recommended that it has to be done by professionally trained medical personnel, there are some countries where circumcision is carried out by untrained persons outside a medical environment.² Often, the inability of the individual to afford the operation has been reported as one of the reasons for the self-attempts at circumcision.^{1,3} An unspecified personality disorder with psychopathic, not psychotic, features has been documented in association with self-circumcision in the literature.³ Although in the UK health services are free and easily available to everyone through the NHS, in this case the patient himself applied the plastic disposable circumcision device that has not been medically approved but is available on the market for self-circumcision. Medically approved plastic disposable circumcision devices have been used in clinical practice for performing circumcision, but long-term follow-up is required to determine efficacy.⁴

Penile strangulating devices are usually metallic^{5,6} or non-metallic rings, nuts, bushes and sprockets, which have been used for improving sexual performance or for self-circumcision.⁶⁻⁸ Metallic objects cause less severe injury than non-metallic thin objects, although metallic objects are more difficult to remove.⁹ Bhat *et al.*⁹ have suggested a hammer and chisel method for removal of these objects. They can cause severe injuries to the penis and the urethra, such as skin necrosis, gangrene of the penis, bleeding, urethral fistula, and necrotising fasciitis and may require amputation of the penis⁵ or reconstructive surgery.

This case represents one of the very rare occurrences of penile skin necrosis following self-circumcision reported in English literature. The first case of the penile strangulation

Figure 2. Penile skin necrosis: (A) dorsal surface; (B) ventral surface.

following use of a self-circumcision device was documented in 2002.⁸ Fortunately, in our case, the patient went through the procedure without loss of penile length or damage to the glans penis or the urethra. A case has been reported that required use of the scrotal skin flaps to cover the penile skin defect after debridement of the necrotic tissue following use of a medically unapproved self-circumcision device.¹⁰ Many circumcisions have been performed by medically untrained traditionalists in Turkey during mass circumcisions, which were responsible for most of the reported complications.² In our case, the device used resembles the principle of the Plastibell (Hollister Inc., USA) circumcision device. The Plastibell device has been reported to cause urinary retention,¹¹ rupture of the urinary bladder,¹² and necrotising fasciitis.¹³ This case is presented to demonstrate that the availability of such objects for the self-circumcision should be restricted to avoid such possible disastrous complications and medically trained person or urologists only should be allowed to carry out this procedure. This case also emphasises the need to educate the general population about the availability of this common surgical operation through the NHS.

References

1. Yoder JE. 'I cut myself, doctor – but it doesn't look quite right'. *Med Econ* 2000; **77**: 141–2.
2. Ozdemir E. Significantly increased complication risks with mass circumcisions. *Br J Urol* 1998; **81**: 652.
3. Talmon Y, Guy M, Eisenkraft S, Guy N. [A case of self-circumcision]. *Harefuah* 1994; **127**: 230–1, 287.
4. Johnsonbaugh RE. Complication of a circumcision performed with a plastic disposable circumcision device: long-term follow-up. *Am J Dis Child* 1979; **133**: 438.
5. Osman M, al Kadi H, al Hafi R. Gangrene of the penis due to strangulation by a metallic ring. *Scand J Urol Nephrol* 1996; **30**: 77–8.
6. Okumura A, Tsuritani S, Muraishi Y *et al.* [Strangulation of the penis by a metallic ring]. *Hinyokika Kyo* 1993; **39**: 1179–81.
7. Perabo FG, Steiner G, Albers P, Muller SC. Treatment of penile strangulation caused by constricting devices. *Urology* 2002; **59**: 137.
8. Kim SJ, Chung H, Ahn HS *et al.* Strangulation of the penis by a self-circumcision device. *Urol Int* 2002; **68**: 197–8.
9. Bhat AL, Kumar A, Mathur SC, Gangwal KC. Penile strangulation. *Br J Urol* 1991; **68**: 618–21.
10. Park NC, Park YS. Excessive penile skin necrosis after the use of medically unapproved circumcision device: case report. *J Korean Androl Soc* 1996; **14**: 63–7.
11. Mihssin N, Moorthy K, Houghton PW. Retention of urine: an unusual complication of the Plastibell device. *BJU Int* 1999; **84**: 745.
12. Jee LD, Millar AJ. Ruptured bladder following circumcision using the Plastibell device. *Br J Urol* 1990; **65**: 216–7.
13. Bliss Jr DP, Healey PJ, Waldhausen JH. Necrotizing fasciitis after Plastibell circumcision. *J Pediatr* 1997; **131**: 459–62.