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Superglue in the Urethra: Surgical Treatment

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Key Words

Foreign bodies · Superglue · Penile urethra · External urethrotomy

Abstract

We describe a case of superglue application into the male urethra with successful surgical treatment of the glue particles by external urethrotomy.

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Introduction

Foreign bodies in the urethra are a relatively common problem in urological emergency health care. Depending on the nature of the introduced devices, removal may be difficult and irreversible damage may be caused.

Case Report

An 18-year-old man presented at the emergency office reporting that superglue had been introduced into his urethra several hours earlier. The patient reported inconsistently on the way of introduction of the glue, therefore the definite reason remained unclear. Clinical examination was without remarkable findings,

and voiding was possible without residual urine. Therefore, conservative management with prophylactic antibiotic treatment and increased fluid intake was recommended. However, dysuria developed, and urinary flow depression persisted. Ten days after initial presentation, clinical examination showed a lengthy firm structure within the penile urethra that had not been present at the time of first presentation. Urine sediment examination revealed leukocyturia and erythrocyturia. At urethrocystography, multiple contrast

Fig. 1. Retrograde urethrography showing the superglue broken into 3 pieces as contrast medium gaps in the penile urethra (arrowheads).

Fig. 2. Incision of the skin and the penile urethra above the palpable foreign body (a) and removal of the superglue from the opened urethra (b).

Fig. 3. The superglue was completely retrieved in 3 fragments.

Fig. 4. Retrograde urethrography 6 weeks after surgical removal of the superglue showing a normal urethra.

Fig. 5. Normal uroflow test 6 weeks after surgical removal of the superglue with a maximal flow of 51.4 ml/s.

medium gaps in the penile urethra were seen (fig. 1). According to the request of the patient, no immediate intervention was undertaken. After another 9 days, the patient agreed with surgical removal of the foreign material. An initial endoscopic attempt failed because of the firm adherence of the glue to the urethral wall. Therefore, an external urethrotomy was performed and the glue fragments were removed completely (fig. 2, 3). The urethra was closed by resorbable single knot sutures (Monocryl® 6-0) and a 20-French transurethral silicone catheter was placed and left inside for 10 days. Six weeks after surgery, urethrocytography (fig. 4) and uroflow test (fig. 5) were normal.

Discussion

Accidental superglue application has been described for several body cavities including the urethra [1–4]. Removal was performed with [2, 3] and without the use of solvents like acetone [1, 4]. In the only case with urethral involvement published so far, the superglue remnants were relatively easily extracted endoscopically [1]. In the current case, however, an endoscopic removal of the superglue pieces was hindered by their firm adhesion to the

urethral wall. Luckily, no durable damage developed after removal by surgical opening of the urethra by an external excision (fig. 2, 3) suggesting that such an approach may be a viable option in similar cases as well. The use of solvent was dispensed with because of concerns about the interaction of the solvent with the urethral mucosa. In animal studies, acetone has been used to induce mucosal damage resulting in a decrease in bladder capacity [5]. It is unknown to which degree local solvent application may

facilitate superglue remnant removal from the urethra and whether solvents such as acetone may aggravate the damage to the urethral mucosa.

Disclosure Statement

The authors declare no conflicts of interest related to the matter discussed in this paper. There was no funding.

References

- 1 Turner WH: Superglue in the urethra. *Br J Urol* 1990;66:217–218.
- 2 Abadir WF, Nakhla V, Chong P: Removal of superglue from the external ear using acetone: case report and literature review. *J Laryngol Otol* 1995;109:1219–1221.
- 3 Anusha B, Purushotman R, Lina LC, Avatar S: Superglue accidentally used as ear drops. *Med J Malaysia* 2012;67:212–213.
- 4 Sira J, Uppal S, Dezso A: Cyanoacrylate ('superglue') injury to the nasal cavity: case report and a proposed management algorithm. *Ear Nose Throat J* 2011;90:26–28.
- 5 Saitoh C, Yokoyama H, Chancellor MB, de Groat WC, Yoshimura N: Comparison of voiding function and nociceptive behavior in two rat models of cystitis induced by cyclophosphamide or acetone. *Neurourol Urodyn* 2010;29:501–505.