

Case Report

Penis Trap by Sliding Closure in Children. Report of Two Cases and Review of Literature

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Abstract

The penis trapped by a zipper is a rare situation. It remains a worrying problem for the child, painful for the parents and difficult to manage for the doctor. It is one of the common causes of penile injury after circumcision injuries. We report two cases of penis trapped by a zipper in children in order to review the literature and identify the factors that caused this accident.

INTRODUCTION

The penis trapped by a zipper remains a worrying problem for the child, painful for the parents and difficult to manage for the doctor. It is usually a child without underwear, too hurried, who accidentally stuck his penis by wanting to close his fly [1]. Several techniques for care have been described in the literature; some of them are complex and laborious, requiring sophisticated instruments, competent hands, or even a formal operation [2]. We report two cases of penis trapped by a zipper in children with the objective of taking stock of this rare lesion in our environment.

CLINICAL CASE 1

Male boy, age 06, brought to the surgical emergency by his parents about two hours after trapping his penis in the zipper of his pants. No attempt at release had been made before admission by the parents. However the pants had been trimmed, leaving the zipper at the prepuce trapped. The child was not circumcised. Examination of the child had noted a prepuce trapped at his ventral surface, with no visible injury (Figure 1). We proceeded, under general anesthesia to the mask to a circumcision removing the closure and the part of the prepuce pinched. There was no subcutaneous lesion. The suites were simple. The patient had left the hospital with prescriptions for local care.

CLINICAL CASE 2

Male child, aged 5, brought to the surgical emergency by his parents one hour after trapping the skin of his penis in the zipper of his pants. An attempt at brutal release was made by the child causing a tearing of the penis skin opposite. Faced with this situation, the parents decided to cut the pants around the zipper keeping it pinched on the skin of the penis before taking the child to the emergency room. The emergency examination noted: a boy

in a state of stress, a little bleeding wound on the dorsal side of the penis of about two centimeters, bordered by a zipper wedging the penile skin (Figure 2).

Under general anesthesia we lubricated the zipper with petrolatum and proceeded to a slight pull. The zipper was then removed from the penis. After extraction, there was then a decaying wound of about three centimeters, superficial occupying the entire dorsal surface of the middle part of the penis. A slight edema and ecchymosis were present locally without subcutaneous lesions. We made a trimming of the wound margins followed by a suture by simple separated points. The patient was discharged from the hospital the next day with prescriptions for local care, an antibiotic (amoxicillin-clavulanic acid combination)



Figure 1 Foreskin trapped by a zipper in a boy of 06 years old.



Figure 2 Penile skin trapped by a zipper in a boy of 05 years old.

and an oral anti-inflammatory drug (ibuprofen). Three days later, the wound was clean, with no disturbance of urination, but there was persistence of edema of the local bruise. The postoperative course was good.

DISCUSSION

The penis trapped by a zipper is one of the common causes of penile injury in children [2]. Raveenthiran V in India reported a series of 12 cases of penis trapped by a zipper [3]. In Nigeria, Onumaegbu OO and Okechukwu OC recorded the case of a 10-year-old boy, but the causative agent was an industrial machine that trapped the child's clothes and penis [4]. In Togo, we report a series of two cases.

The child is most often affected than the adult probably because the adult is more likely to release his penis trapped by a zipper [3]. Arrabal-Polo et al., in Spain reported the case of an 84-year-old man admitted to the emergency department for a foreskin trapped by a zipper [5]. In the literature, the largest series in children is that of Wyatt JP and Scobie WG, out of 30 cases with an age range between 02 and 12 years [6]. In our series, the patients were respectively 06 and 05 years old.

In most cases, this is an accident that occurs in the absence of underwear on uncircumcised children [1,7]. The patients of our series were also without underwear. Uncircumcised patients are the most commonly affected [1,7]. In our series, one of the patients was not circumcised but the second was.

The skin of the penis can be trapped by a zipper during the closing or opening process. Two trapping mechanisms have been described [8]. The first occurs when the zipper has passed the trapping site of the skin between the teeth of the closure. This is the least common type and is most easily handled by cutting the zip under the trap point. The second type, the most common, the skin is taken by the sliding zipper. It is this second mechanism that has been found in one of our patients.

Clinically, pain and anxiety are the main symptoms, local edema, bruising, foreskin wound. [1,3,7,8]. It has also been described in the literature the ischemia and necrosis of part of the foreskin [5]. These children are often anxious because of the many unsuccessful and painful attempts of extraction by the

parents [1]. The other lesions can be explained by the degree of strangulation of the penile or preputial skin. All these lesions were found in patients of our series with persistence of local edema and ecchymosis after removal of the zipper.

Therapeutically, several penis release techniques are described: Kanegaye JT and Schonfeld N in the USA have described the application of mineral oil followed by gentle traction to release the zipper used on 02 children successfully [1]. Raveenthiran V in India has described a technique with a screwdriver to release successfully the prepuces trapped by a zipper in 12 children [3]. Nakagawa T and Toguri AG in Japan described the technique using a forceps to cut the zipper middle bar in 02 children [7]. Excision, followed by primary closure of the wound, has been described by Arrabal-Polo et al., in Spain [5]. For most authors, the Arrabal-Polo technique and circumcision have been described as definitive methods [3]. Faced with the lack of emergency equipment and the inexperience of non-surgical methods, we opted for definitive methods such as circumcision in the first case and excision followed by primary closure of the penile skin described by Arrabal- Polo et al., in the second case.

The postoperative complications of the management of trapped penises are unaesthetic scars, dysuria and urethral lesions. Nakagawa T and Toguri AG found persistence of ecchymosis and local edema after zipper extraction [7]. For Raveenthiran V, in one patient the ulceration of the skin persisted after extraction of the zipper [3]. Despite the persistence of local edema and ecchymosis after removal of the zipper at the level of the trapped penile skin, we had good esthetic results with scarcely visible scars and a normal-looking penis two months later.

CONCLUSION

Penetration of the penis by zipper is a rare pediatric emergency that practitioners should diagnose early and treat promptly in order to prevent serious injury. The risk factors for this accident in our context are essentially the absence of wearing underwear and circumcision. The patients of our series were taken care of early by definitive techniques with good aesthetic results.

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