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Strangulation of the Penis by a Ring in Children: About a Case

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Abstract

Strangulation of the penis by a ring is a rare but quite common event in children and is potentially serious. We found it important to report this case in order to share our experience on the management of penis rings. It was a 9-year-old child, with no particular medical-surgical history, nor any notion of known family defect, brought to the emergency room by his parents for intense pain in the penis associated with incessant crying. In front of which a clinical examination made it possible to conclude with penile strangulation by a metal ring. Our course of action was the ablation of the ring with non-medical forceps associated with local and general care. No complications were observed during treatment. The immediate consequences were simple and the patient was followed for 4 months.

Keywords

Strangulation, Penis, Tominian

1. Introduction

Strangulation of the penis by a ring is a rare but quite common event in children

and is potentially serious. The functional prognosis depends on the earliness of treatment. Several cases have been reported worldwide for various reasons [1]. The frequently used object is a metal ring placed on the penis for various reasons (to increase sexual performance or for auto-erotic intentions or sometimes as a result of psychiatric disorders, etc.) [1] [2]. The ablation of this metal object which is an emergency sometimes remains a challenge because of sometimes using non-surgical instruments.

The ablation of these metal objects requires the use of non-surgical equipment and the ablation technique is different depending on the context.

Penile strangulation seems rare in the literature, particularly unintentional, unlike urogenital trauma, which can affect young subjects (average age 26 years) up to 70%. [3] [4].

We report a case observed at the Tominian Reference Health Center. The aim was to describe the clinical and therapeutic aspects.

2. Observation

It was a 9-year-old child, with no particular medical-surgical history, nor any notion of known family defect, brought to the emergency room by his parents for intense pain in the penis associated with incessant crying. The interrogation reveals that a ring had been put in place during a walk with friends where everyone used it in turn. Thereafter he was the last to keep it for an aesthetic reason. Out of fear, he had hidden it from his parents. For 2 days, this has resulted in progressive onset pain and swelling of the glans associated with dysyuria before which the parents brought him for care. On admission, the child was anxious and agitated by sharp pain. The physical examination revealed edema of the penis downstream and upstream of a semi-closed ring placed at the base of the penis (**Figure 1** and **Figure 2**) a reddish, shiny glans. The diagnosis of penile strangulation was made.

The child was hospitalized with the placement of a venous line and rehydration associated with an analgesic based on paracetamol infusion. We did not consider it necessary to place a urinary catheter. The local treatment consisted of removing the metal ring. This step was very laborious, we used different surgical forceps essentially composed of traumatology forceps, and after several attempts with even more traumatic gestures without success; we requested the service of a metal carpenter with various non-surgical pliers. Several simultaneously coordinated gestures made it possible to open the ring with cutting pliers (**Figure 3** and **Figure 4**).

The evolution was marked after 3 days of hospitalization by a progressive regression of the edema and the remission of the pain under anti-inflammatory. The child was able to urinate without dysuria, urinary burning or hematuria. The child had been discharged after 5 days of hospitalization. Post-traumatic follow-up was carried out every month for 4 months with a satisfactory evolution (**Figure 5**).

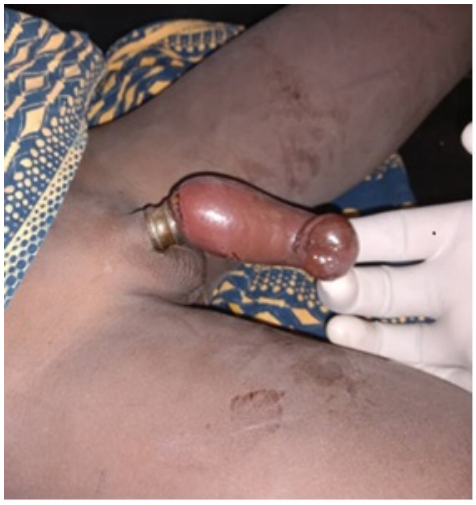

Figure 1. Penis ring with downstream edema.

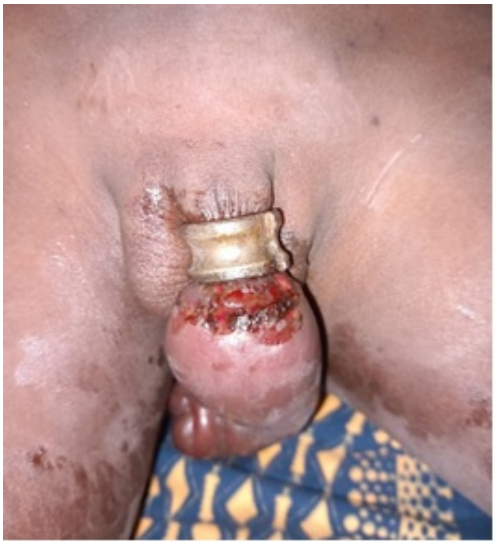

Figure 2. Ring with spacer furrow.

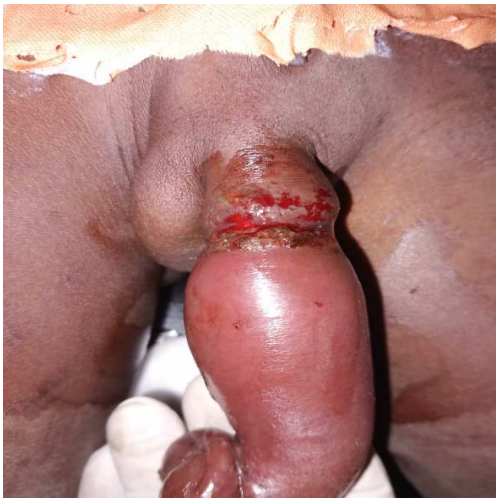

Figure 3. Appearance of the penis after removal.

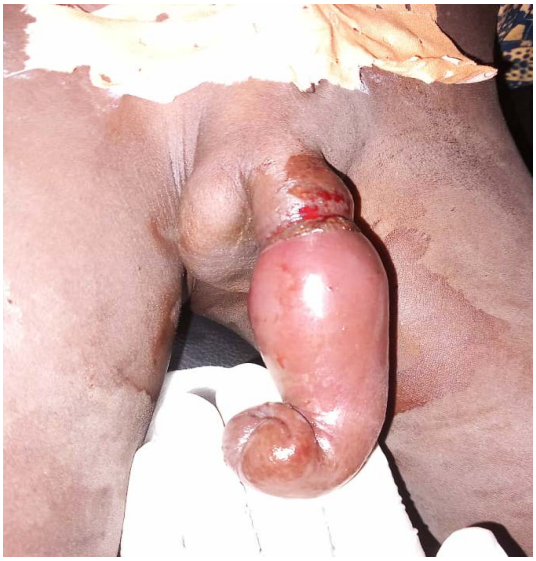

Figure 4. Associated suprapubic puncture of the ring.

Figure 5. Appearance of the penis after 4 months.

3. Discussion

Trauma to the penis is most often accidental in children and of various causes in adults. In our observation, the trauma was caused by a metal ring (a motorcycle bearing) occurring during amusement that caused progressive strangulation around the base of the penis.

This traumatic mechanism was observed in children as in Abdoulaye's study [5] and unlike that of Diaby [1]. Some cases have been observed in adults as in the DIABY study for socio-cultural reasons and or in the event of psychotic disorder [1] [2].

In our observation, the strangulation object was a metal ring with difficulty stretching with a spacer groove contrary to what is usually observed in the literature in children where the metal strangulation objects were without a spacer groove and rather common in adults [1] [6]. This testifies to the accidental nature and without a prior choice of strangulation material.

The most frequently used metal ring is the ring, especially in adults [6], unlike ours which was a motorcycle bearing.

The use of several rings at the same time is a phenomenon observed in patients with psychotic disorders in adults [7]; this was not observed in our case.

The reasons for cases of strangulations by a metal ring are diverse, particularly in adults, either in the context of self-mutilation in the psychologically unstable patient, auto-erotism and sometimes the need to increase the quality of his erection [1] [8] [9], and the patient's desire for sexual satisfaction to prolong it [6] [10]. In our case, the essential reason mentioned was rather fun in an aesthetic context without any medical history or identified behavioral disorder.

The penis ring compresses the base of the penis and prevents venous and lymphatic return, thus causing significant skin edema (**Figure 1**) as well as blood stasis in the sinusoidal spaces of the cavernous bodies. Prolonged venous ischemia can progress to infarction, necrosis, urethral fistula, or gangrene within hours.

In our observation, we did not find areas of necrosis on examination, evidence of an early consultation as concluded by Prunet in his study [6] and/or a loose ring on the penis.

The psychological state of the patient would influence the time to consultation and the degree of strangulation as in other observations [1].

During the management, we performed bladder drainage by suprapubic puncture taking into account the inflammatory reaction (**Figure 2**) and the traumatic context of the urethra as supported by Ivanovski [11] who first recommends suprapubic catheterization for one week.

There is no single, consensual approach to penile strangulation [12]; the ablation of the metal ring in our case did not follow a classic pattern, in particular, the method of winding a wire as if to remove a ring, which is reserved for recent cases where the edema is less or absent [13] nor the sliding technique. The removal was laborious, in particular, no surgical forceps could extract it but made possible with non-surgical metal forceps from the metal carpenters. The removal was laborious, but made possible with metal pliers from metal carpenters.

Urination was made possible approximately three hours after the removal of the ring.

The immediate follow-up after 5 days followed by discharge and in the medium term for 4 months was simple without detectable functional disorders or any major complication, in particular retention of urine, urethrorrhagia, urethral fistula or section of the corpus spongiosum.

4. Conclusion

Penile strangulations can occur in several contexts; on the one hand in an accidental context in children and young adults or self-mutilation of psychotic origin in adults. Healing is possible without complications after early removal.

Conflicts of Interest

The authors declare no conflicts of interest.

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