



Traumatic penile injury with successful glans reimplantation: A case report

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ABSTRACT

During circumcision, glans amputation is a rare but potentially devastating complication. Causative factors are varied. External genital injury can be categorized as accidental in origin including during circumcision and as other traumatic origins including animal bite, gunshots, or self-mutilation. We report a case of a 4 year child undergoing circumcision with glans injury. He presented to us with bleeding from glans and the partially amputated glans brought together in normal saline. Child underwent immediate glans reimplantation. On one month follow up there was complete glans uptake.

Key Words: Penis, circumcision, glans injury, amputation, reconstructive surgery.

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Received: 2020-01-11 / Revisions: 2020-01-23

Accepted: 2020-01-26

Publication Date: 2020-03-01

Introduction

External genital injury in men can occur with many traumatic causes, such as circumcision, animal bite, gunshots or self-injury [1-3]. Circumcision, which is widely applied in the world for religious and medical indications, is surgical excision of preputium in a certain form and length [4,5]. Although circumcision performed by specialists are generally followed without any problems, those performed by untrained persons or in unsuitable conditions can result in a wide variety of complications [4-6]. We describe

successful re-attachment of a distal penile glans cut during a circumcision procedure performed with the clamping technique in a 4-year-old boy.

Case report

Four year old child brought by parents with complaints of bleeding from penis after undergoing religious circumcision from a local doctor 90 mins back. Patient was vitally stable with no previous history of trauma or urinary complaints. On examination there was a circumferential doughnut shaped portion of glans of thickness 3 mm with bleeding from raw surface of glans (Fig. 1). The amputated glans was sent in a polyethylene bag immersed in water by the referring doctor. Patient was taken to operation theatre with penis and amputated glans thoroughly cleansed with normal saline. Penile block was given with

lignocaine. Glans reimplantation was done over Foleys catheter no 6 with prolene 5-0 round body needle (Fig. 2A, B).



Fig. 1. Appearance of the glans post amputation.



Fig. 2A, B. Reimplanted segment of amputated glans, showing good color with viability.

Frenular artery was ligated with chromic catgut 3-0 round body needle with circumferential skin sutures completed. Intravenous antibiotics were given for 5 days and the Foley was removed on day 10. Child passed urine in good stream and had developed a scab over the wound. He was discharged with wet gauze dressings and sitz bath for 2 weeks. On follow up the wound was healthy with urine passage in good stream (Fig. 3).



Fig. 3. On one month follow-up.

Discussion

The complication rates of circumcision, which is one of the oldest and widely applied surgical procedures, mostly vary between 0.2% and 5% in relation to the anesthetic procedure performed. These rates are much higher when applied by untrained individuals [1,4-6]. Penile injury by circumcision also can have lifetime functional, psychological, and cosmetic sequel [1]. Complications that occur during the circumcised acute period are usually bleeding, penile hematoma, urethral or glandular injuries, wound infection, and secondary phimosis [1,4-7].

Generally, amputation of penis or glandular part is the most serious complication of circumcision due to improper. The level of

amputation and time interval from injury is important in the approach to treatment [8,9]. The macroscopic penile replantation method has been applied since 1970, and this treatment accounts for more than 70% of cases. The first phenomenon of this method was reported in 1929 by Ehrlich [1,10]. The defect can be grafted with skin or buccal mucosa graft if amputated glans is not available. Graft is a successful method in these cases because the dorsal and urethral arteries provide excellent vascularity for the glans and corpus spongiosum, as in our case [1]. In addition, microvascular penile replantation is another known treatment method, especially in patients with proximal amputation [1,11]. In cases where microsurgical repair is not possible after dysepithelization, the penis is buried in the inguinal area to protect the viability of the penis [9]. The most common complication after anastomosis of amputated glans is meatal stenosis requiring revision surgeries such as glansplasties, neouretroplasties, meatoplasties, and urethral mobilizations or dilatation [12].

Conclusion

One should exercise adequate release of ventral adhesions to prevent glans injury. There are no specific guidelines for the treatment of severe penile injury because of the complex injury mechanisms involved. However, we believe that glanular amputation should be treated according to standard principles of grafting in reconstructive surgery. Pediatric penile injury has to be approached with delicate and prudent care plan.

Compliance with ethical statements

Conflicts of Interest: None.

Financial disclosure: None.

Consent: All photos were taken with parental consent.

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