

Successful Trauma Penis Management with Foreskin Flap in a Limited Resource Setting

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A 41-year-old man presented to our attention with a history of penile trauma at work. Penis was entangled in the mill transmission belt and underwent to heavy tearing with exposure of corpora cavernosa and scrotum laceration (Figure 1A). Fortunately, both corpora cavernosa and urethra did not face rupture. Considering that the patient had never been circumcised and that the foreskin had been preserved by trauma, we proceeded with a covering of the lesion with the preputial tissue. The ventral peripheral ring was excised and removed in addition to excess ventral preputial tissue. All inner preputial tissue dorsally and laterally was preserved and unfolded for use as an advancement flap. Using the proximal cut end of the foreskin as an entry point the preputial skin was undermined. The vascularized flap obtained allowed coverage of partial length of the injured penile shaft and, finally, we saturated the wound of the scrotum (Figure 1B).

Many disease conditions as trauma, burn injuries, resection of cancer or genital lymphedema and infections, can lead to penile skin loss resulting in severe functional disability other than cosmetic disfigurement and necessitating surgery intervention [1]. In case of extensive penile denudation, split-thickness skin graft is demonstrated to be satisfactory for the reconstruct of wounds for reasons of easy harvest and valid coverage [2]. However, skin grafts frequently develop scar contracture which may have side effects on the aesthetic and function of the penis [3]. So, attempts have been made to develop alternative procedures and, in particular, scrotal skin flap, although little has been published about it, seems to allow a better sensory and erectile function with good long-term results [4]. Still less studies exist on the utilization of the foreskin flap, although, this technique, whenever preputial skin is available, may have many advantages as coverage with similar well vascularized tissue, flap thickness similar to native penile skin, ease of flap harvest, minimal donor-site morbidity, avoidance of late scar contracture, and ability of the flap to grow proportionally with the patient [5].

This last technique can be particularly useful in limited resources setting, considering the lacking of specialized health worker as plastic surgeons, and the frequency of infectious complications.

To the best of our knowledge, this is the first described case in low income countries and, although we cannot predict if he will recover the sexual function, we are considering a successful management due to the absence of complication 10 days after surgery (Figure 1C).



Figure 1: Penis trauma at presentation (A), after foreskin flap restoration (B), and 10 days after surgery (C).

Conflict of Interest

No conflicts of interest.

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Ethical Approval

NA.

Consent

Written informed consent was obtained.

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