

Case Report

Penile trauma in the field: a case of power take-off injury managed without hospitalization

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Received: 09 June 2026

Accepted: 15 July 2026

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ABSTRACT

Power take – off injury (PTO) is the commonest mode for male genital injury. PTO injury occurs when a power electrical / mechanical heavy machine pulls victims loose outfit when entangled and rips off with a de-gloving injury of the male genitalia. In this report we have discussed a case of 42-year-old man, working in a paper factory, who came to our clinic with a de-gloving injury of the penis with PTO model and with reported significant blood loss. He was solely managed in our clinic due to financial constraints and non-availability of a valid health insurance. The patient took one month for whole recovery, with preserved sexual and urinary functions.

Keywords: Penile injury, Power-take off, De-gloving injury, Case report

INTRODUCTION

High-power injuries known as de-gloving occur when the skin is severed away from the underlying tissue, cutting off the blood supply.¹ Car accidents on roads cause most severe injuries. Other possible causes of de-gloving injuries, that primarily affect the upper and lower limbs, include industrial and agricultural mishaps. Scrotal and penile de-gloving injuries are uncommon. Farm machinery is the primary source of penile avulsion injuries that are documented. These wounds are referred to as "power take-off injuries," which are wounds brought on by the transfer of power from a single thing to another.² In penile avulsion, the surrounding clothing traps the skin surrounding the penis, which is then violently torn off by a machine. If not appropriately addressed, penile injuries can cause significant disruptions to the patient's physical and mental well-being. When a penile injury occurs, the skin is typically the most affected area, with the testes, cavernous bodies, or a spongy body suffering little harm. Penile skin avulsion usually involves the entire penile skin down to the corona and begins above the pubic symphysis.³ The floating position of the testis, the possibility of

hemorrhage, and the region's inherent susceptibility to infection and ensuing graft loss make genital reconstruction difficult.

In many countries, patients must pay the healthcare provider directly for their treatment to receive it. Usually, the patient is responsible for paying these costs.⁴ As a result, regardless of whether they feel driven to do so, people who cannot afford care are frequently discouraged from doing surgeries. Certain healthcare providers have attempted to get over these cost barriers by using outpatient services. In this case report one such case where the patient was not able to afford surgery in tertiary care hospital was treated in a private clinic set-up and had complete recovery.

CASE REPORT

A male laborer aged 42, arrived in a private clinic around 2 hours after suffering a penoscrotal degloving injury. According to history, the patient was doing his regular work at a paper industry when he sustained an accidental machinery penile injury. He remembers that the machine pulled him up by the groin by his clothes, where it

snagged the skin of his penis and scrotum. The patient was not a known case of diabetes/hypertension, and no significant past-history was elicited. Upon examination, a circumferential avulsion of the penile skin that left the glans and extended up to the coronal sulcus was found (Figures 1 and 2). From above, the avulsion covered the whole scrotal skin up to the perineum, extending from just above the pubic symphysis downward.



Figure 1: Injured part taken on the day of injury – view 1.



Figure 2: Injured part taken on the day of injury – view 2.

On examination, the patient was stable. He was concerned about his financial constraints and didn't possess a health insurance for surgical procedure. Hence it was planned to treat him on out-patient service basis with suturing and dressing of the injured site. A Complete blood count was taken and hemoglobin level was normal. The wound site was sterilized and thoroughly cleaned before administration of local anesthesia. A ring block and dorsal penile block were done using 30 cc of a 2% lidocaine. The wound defect was carefully closed by suturing with 3-0 monocryl. The patient tolerated the procedure well and was observed for 1 hour post suturing.

The patient was prescribed amoxicillin + clavulanic acid 625mg twice daily for 1 week for antibiotic coverage and tablet diclofenac 50 mg twice daily for 1 week for analgesic effect.



Figure 3: Injured part taken on the 4th day of injury – view 1.



Figure 4: Injured part taken on the 4th day of injury – view 2.

The patient was afebrile, stable clinically, and vitally throughout. Three days following the procedure, the dressing was changed. Following the 4th post-op day (Figures 3 and 4) dressing was done on alternative days for one week. The picture taken on the 12 days of post procedure showed that the scrotal and penile skin healed well, with no signs of infection (Figures 5 and 6). Later dressing was done once a week and the patient came for follow up till 2 months post procedure. At the end of 2 months there was complete healing of the wound with no residual contracture (Figures 7 and 8). The surgical repair provided adequate functionality and the patient was satisfied with the management. The patient gave

written informed consent to use his photos and publish the report.



Figure 5: Injured part taken on the 12th day of injury- view 1.



Figure 6: Injured part taken on the 12th day of injury- view 2.



Figure 7: Injured part taken after 2 months of injury – view 1.



Figure 8: Injured part taken after 2 months of injury – view 2.

DISCUSSION

Penile injuries are typically uncommon because of its considerable mobility and isolation. To accommodate the penis's flaccid and stiff states, the skin covering it is loose, elastic, and very malleable. This slack basis makes the skin more vulnerable to avulsion. Endogenous skin and the erectile tissue of the glans penis are rarely harmed, and deep erectile tissues of the penis escape damage because the skin separates from the surface dartos fascia. Peno-scrotal injuries of this degloving type cause less pain.⁵

When individuals who have perineal trauma and pelvic bone fractures appear with blood in the urethral meatus, gross hematuria, or incapacity to void, the surgeons have to assess any concurrent urethral injury. When a disruption of urinary, sexual, and/or reproductive function is expected, clinicians should begin psychological, interpersonal, including reproductive counseling with patients suffering genital trauma and their medical choices.

It is possible to foresee complications such as infections, necrosis of the graft tissue, wound dehiscence, and gaping, decreased spermatogenesis from the loss of the dartos muscle and fascia for controlling body temperature, and painful erections as a result of penoscrotal scars and cicatrizations.⁶

The devitalized tissues are carefully cleaned and debrided as part of the treatment of penoscrotal avulsion, and viable flaps of the remaining skin are used to cover the exposed tissues. Following trauma, initial surgical closure can be performed on less than 50% of the scrotal skin loss, leaving the surrounding viable tissue. Embarrassment over the location, mode, or circumstances of the injury frequently causes a delayed presentation and can make diagnosis and treatment more difficult. It is crucial for physiological, social, and psychological reasons to restore the shape of the scrotum and a long-

lasting functional cover for the testes, particularly in young guys. From the patient's point of view, this treatment method offers the surgical team within a private care setting a simpler and more gradual surgical approach that has a lower psychological and financial impact.^{7,8}

There are several potential advantages to using loco sedation. In addition to relieving the already substantial surgical backlog, doing reconstructive surgery without using an operating room can result in significant cost savings at the system level and avoid the need for anesthesia. Patients benefit from earlier surgery, less fasting before to the procedure, and maintain tolerance. Shorter hospital stays and improved functional and aesthetic results are the results of these considerations.

CONCLUSION

When using industrial and agricultural machinery, safety precautions and awareness are required. An integumental unit made up of the skin around the penile and scrotum can be pulled in a power-takeoff mishap, causing degloving injuries. Such injuries based on the severity and the financial constraints of the patient can be treated in a OPD basis for the benefit of the individual patient.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Bachoo S, Batura D. Fractures of the penis. *Br J Hosp Med (Lond)*. 2021;82:1-9.
2. Barros R, Ribeiro JGA, da Silva HAM, de Sá FR, Fosse AM Júnior, Favorito LA. Urethral injury in penile fracture: a narrative review. *Int Braz J Urol*. 2020;46:152-7.
3. Thompson H, Burdall O, Lakhoo K. Degloving injury to groin, scrotum and penis due to low-velocity handlebar injury. *BMJ Case Rep*. 2019;12:e231598.
4. Reuter A, Rogge L, Monahan M, Kachapila M, Morton DG, Davies J, et al. Global economic burden of unmet surgical need for appendicitis. *Br J Surg*. 2022;109:995-1003.
5. Bhogesha S. Isolated penile degloving injury: an unusual emergency. *ANZ J Surg*. 2019;89:449-50.
6. Alkahtani D, Mortada H, Rashidi M, Al Tamimi A. Traumatic degloving injury of penile and scrotal skin: a case report. *Plast Reconstr Surg Glob Open*. 2020;8:e3024.
7. Selikowitz SM. Penetrating high-velocity genitourinary injuries. Part I. Statistics mechanisms, and renal wounds. *Urology*. 1977;9:371-6.
8. Lumen N, Kuehhas FE, Djakovic N, Kitrey ND, Serafetinidis E, Sharma DM, et al. Review of the current management of lower urinary tract injuries by the EAU trauma guidelines panel. *Eur Urol*. 2015;67:925-9.

Cite this article as: Suresh S. Penile trauma in the field: a case of power take-off injury managed without hospitalization. *Int Surg J* 2026;13:1496-9.