

## Self-penile amputation and castration: A rare and life-threatening form of genital self-mutilation

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### ABSTRACT

Self-castration and penile amputation are rare life-threatening types of genital self-mutilation. The microsurgical technique of penile replantation is the gold standard; however, there are conflicting reports of successful macrosurgical penile replantations. Being rare, this condition may even be mistaken as criminal genital mutilation. The surgical management of penile amputation evolves over a few case reports and case series; therefore, it is prudent to publish such rare phenomena to make more awareness among the clinicians to initiate prompt and effective treatment. We report a case of self-multiple penile amputations and castration in a 70-year-old man suffering from bipolar disorder who also had failed macrosurgical penile replantation. To the best of our knowledge, this is the first case of self-multiple penile amputation with castration reported in the literature. Although ours is a single case experience, yet the macrosurgical replantation in multiple penile amputations is likely to be unsuccessful.

**Key words:** Genital self-mutilation, Macrosurgical replantation, Penile replantation, Self-castration

Genital self-mutilation (GSM) is an infrequent form of self-harming behavior often non-suicidal that occurs within a spectrum of severity. Approximately, 110 cases in men have been described in the literature [1]. About 87% of GSM occur in patients with psychotic disorders [2]. However, such injuries have also been reported in nonpsychotic patients [3]. Penile amputations are best managed microsurgically, however, there are reports of successful macrosurgical replantation. Complications with the macrosurgical technique can include skin necrosis, fistula formation, loss of penile sensation, and erectile dysfunction [4]. Due to its rare nature and also due to underreporting of such cases, it is even mistaken as criminal genital mutilation. It is also true that surgical management of GSM evolves over a few case reports and case series. Therefore, reporting of different forms of GSMs and their surgical management appears to be justified.


We describe a very rare case of self-multiple penile amputation and castration. We also like to share the surgical outcomes. To the best of our knowledge, this is the first case of self-multiple penile amputation with castration reported in the literature.

### CASE REPORT

A 70-year-old male was brought by his relatives to the surgical emergency with a self-inflicted genital injury. The patient relatives found him lying over his bed in a pool of blood. As per the history, the injury was likely inflicted about 3 h before they discovered the patient. The patient was a chronic alcoholic and cannabis abuser for the past 20 years. He was also diagnosed with bipolar disorder 3 years back but not on regular medications. The patient disclosed that he had self-mutilated his genitalia using a shaving blade under a command hallucination.

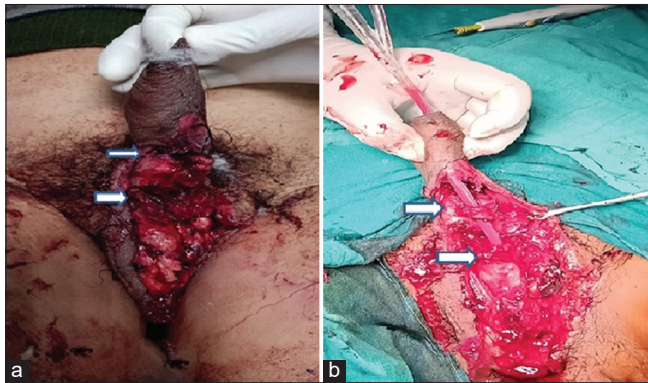
On examination, bilateral testes were completely severed and the penile corporal bodies including the urethra were cut completely at its base and shaft about 2.5 cm apart and the severed parts being remained attached by the dorsal penile skin and dartos fascia only, as shown in Figure 1. There was also extensive loss of scrotal skin and the proximal penile skin ventrally. Both the testes could not be retrieved. The patient's vitals were stable and there was no active arterial bleeding except for oozes from the severed wound margins.

He was taken to the emergency operation theatre for macroscopic reimplantation of the severed penis under regional anesthesia, as our department did not have a surgical microscope for microvascular anastomosis. Spermatic cords, along with

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**Figure 1: Images showing multiple penile amputations, lacerated penile, and scrotal skin – pre-operative (a) and intraoperative (b)**



**Figure 2: Images showing macroscopically replanted penis (a) and perineal urethrostomy (b)**

the spermatic vessels, were en masse ligated bilaterally. Circumferential approximation of the corporal bodies followed by spatulated anastomosis of the transected proximal pendular urethra at two sites over 16F silicone catheter was done. Buck's and dartos fascia were approximated and the skin closed, as shown in Figure 2a.

On the post-operative day (POD) 3, necrotic changes around the approximated penile skin margin and glans were noticed, which were slowly progressing proximally. The patient had superadded wound infection on POD 6 and gangrenous changes along the ventral half of the whole length of the penile shaft were developed on POD 10. On POD 12, we debrided the whole gangrenous penile shaft and a perineal urethrostomy was performed under regional anesthesia, as shown in Figure 2b. Regular consultation with a psychiatrist was also taken during the period of hospitalization. The post-operative period was uneventful. Per urethral catheter was removed on POD-10 and the patient was discharged with the advice to continue psychiatry medications.

## DISCUSSION

GSM is a urological emergency primarily seen in patients with psychotic disorders. Its spectrum of severity may vary from a mere

small laceration to the life-threatening self-castration and penile amputation. Our case was an extreme form of GSM, where there were self-castration and penile amputation and to our surprise, there was no active arterial bleeding at the time of presentation, and the patient's vitals were stable despite completely severed both spermatic vessels. This is contrary to our understanding that the bleeding from spermatic arteries which are direct branches from the aorta could be fatal. A maximum of 6 h is conventionally accepted to attempt macrosurgical replantation, while the use of microsurgery gave the opportunity for successful operations after 16 or even 24 h of ischemia [5,6].

The microsurgical technique basically involves the anastomosis of the dorsal penile artery, vein, and nerve and provides early restoration of blood flow with the best prospects for graft survival, normal erectile function, and optimal benefits [7,8]. However, only just re-approximation of the corporal bodies, that is, macroscopic replantation relied the graft survival on the subsequent corporal sinusoidal blood flow within the distal amputated part [4]. There are conflicting case reports in the medical literature where macrosurgical replantation of the amputated penis also yields satisfactory results. Fifty cases of replantation were done using a non-microsurgical technique and at least 30 cases of replantation were done by microsurgical technique [7]. Riyach *et al.* [5] reported their successful macrosurgical reimplantation of an amputated penis. In a series of 14 macrosurgical penile replantations by Bhanganada *et al.*, skin loss was reported in 12 patients and graft loss in six patients [9].

The final surgical outcomes of penile replantation also depend on many factors such as the degree of injury, type of injury (crushed, lacerated, or incised), warm ischemia time, the equipment used, and surgeon's experience [10]. Unfavorable factors in our case were multiple penile transactions with lacerations, borderline warm ischemia time, and the lack of a surgical microscope. The main cause of penile ischemia and gangrene might be due to corporal bodies transaction at two sites, thereby introducing an ischemic prone short segment of corporal bodies in between.

As the macrosurgical penile replantation described in the literature is of single clean cuts, there is still a conundrum in the surgical management of multiple penile amputations. Our single case experience has questioned the role of macrosurgical penile replantation in case of multiple amputations. However, to better understand the outcomes of different types of penile replantation, we need to be more familiar with such similar cases and learning from published case reports and series is one way of achieving it. And to the clinicians, who are not aware of such rare and underreported phenomena, GSM may even be mistaken as criminal genital mutilation. Hence, we feel that it is prudent to report such rare cases so that clinicians especially surgeons are aware of this condition and prompt and effective modality of treatment can be initiated.

## CONCLUSION

GSM is a rare entity. The macrosurgical replantation in case of multiple penile amputations is likely to be unsuccessful.

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