Pan-African Journal of Plastic Reconstructive and Aesthetic Surgery Vol. 2 No. 1 March 2025
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ABSTRACT

Penile amputation constitutes a rare yet life threatening emergency, mostly occurring due to self-mutilation in the face of acute psychotic episode (Klingsor Syndrome), this incident, influenced by auditory commanding hallucinations, presented a considerable challenge in which multidisciplinary team approach played a vital role.

We present a case of a 22-year-old male with self-inflicted penile mutilation following an acute psychotic episode with auditory hallucination of command, the patient was referred to our facility, arriving 10 hours following a self-inflicted penile amputation. He was promptly assessed at our emergency department by multidisciplinary team and the underlying disorder was found to be controllable and after a thorough evaluation, we opted, in agreement with the family, for penile replantation, here, we provide an account to our management and the microscopic reimplantation procedure that was performed under loupe magnification, with additional anastomosis of cavernosal arteries, achieving microsurgical reperfusion by 17 hours after mutilation, following five hours of surgical time. Our patient reported his first erection before discharge. Early complications associated with the wound site were reported and was managed by wound care, surgical debridement, and subsequent skin grafting. The urethral catheter was removed at discharge, with good micturition stream observed.

Conclusively, successful microsurgical penile reimplantation in the face of self-mutilation underscores the role of a multidisciplinary team in decision making, and patient care in the background of psychiatric illness. Anastomosis of cavernosal arteries provides early return of erectile function. The promise for continued psychiatric compliance ensures avoidance of long-term complications, especially re-amputation.

Keywords: **Self-inflicted penile mutilation, Microsurgical reimplantation, Multidisciplinary, Klingsor syndrome, Case-report**

INTRODUCTION

Penile mutilation may lead to a major functional disability with significant loss of self-worth, potentially causing a vicious cycle of psychological instability, which may complicate surgical outcome. Majority of Self-inflicted penile mutilation described, follow a psychotic episode (1) (Klingsor Syndrome), accounting for 87% of reported cases (2), or with associated drug use (3). Penile Self-Mutilation (PSM), also Eshmun complex in Greek mythology (4), was first documented in the English literature by Strock, 1901(5). Reports from Kenya and Nigeria (6) associate it with deliberate self-harm as documented in a 1986 report of psychiatric practice, was categorized into two; a mild form associated with attention-seeking, and a severe form seen in psychotic states, victims of the latter may act under delusion or obeying auditory hallucinations (7). Hereunder, we present microsurgical reimplantation with additional anastomosis of cavernosal arteries for a typical case of Klingsor syndrome with resultant early return of erectile function.

CASE PRESENTATION

A 22-year-old male with a self-inflicted penile amputation using a kitchen knife, was taken to a nearby facility, arriving 3 hours after the incident. Bleeding was arrested and the amputate preserved in a cool box, then referred to our facility, arriving 7 hours later (10 hours after injury). Assessment at our emergency department revealed a hemodynamically stable patient, sedated and arousable. Urologic examination revealed a clean-cut amputation stump 2cm from the mons, blood clots, no active bleeding, the amputate was 6cm long (Figure 1).

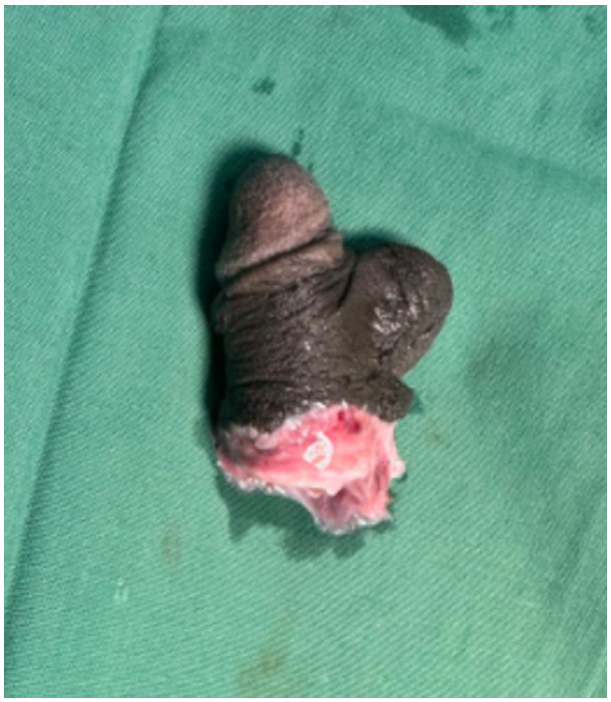

Figure 1:- Amputate after debridement and saline solution wash.

Psychiatric assessment revealed the patient had been on follow-up from a psychiatric facility with a diagnosis of acute psychosis. He was discharged on medication 10 months prior to the incident and was quite well, attending school at a technical institute. He defaulted two months after discharge, was agitated a week preceding the incident, he reported to have been instructed by God to cut off his penis, he also admitted to drug abuse. Assessment and corroboration from the father promised healthy psychological support and was thus cleared for surgery.

SURGERY

Our surgical team consisted of the Plastic microvascular surgeon and urological surgeons.

The procedure was performed under general anesthesia. The stamp and amputate, debrided and washed with saline (Figure 2). 18F silicon urethral catheterization through the tip of the amputate, then into the stump. The severed urethra ends spatulated and anastomosed end-to-end with PDS 5/0 over the catheter, the ventral portion of the tunica albuginea was repaired watertight.

Figure 2:- Amputate (a) showing the tunica enveloping the cavernosa, the stump(b) after debridement.

Figure 3:- Immediately post microsurgical repair of neurovascular structures, before skin closure.

The Plastic surgeon then dissected out the Cavernosal arteries, a 1.5mm deep dorsal vein, 1.4mm dorsal arteries and two dorsal nerves, coaptated in that order using nylon 10/0 under loupe magnification x 6 (Figure 3), cavernosal arteries anastomosis presented a challenge with placement of clamps due to limited space, we utilized the first of the four coaptation sutures to delicately approximate the vessels, aided by a slight trim off the cavernosal tissues.

The remaining dorsal portion of the tunica albuginea was then repaired with interrupted 5/0 poly-dioxanone. Skin closure was performed with 4/0 nylon and a snug dressing applied.

RESULTS

Microsurgical reperfusion was achieved 17 hours post amputation, total surgical time was 5 hours, and had received a single dose of cefuroxime 2gms, 450mls of packed red cells and 2 litters saline.

The patient was transferred to high dependence unit for observation and nursing care for a week, within which time he was started on anticoagulation with subcutaneous Clexane 40 I.U instituted on day one, for a week. The psychiatrist reviews and counselling were provided on first post operative day, and re-instituted on antipsychotics. The patient reported his first erection on the second post operative day. Surgical site dehiscence was noted second week, later debrided and thereafter skin grafted, the catheter was removed on the third week post operatively, and no micturition challenges were reported.

Other episodes of erection were reported after discharge, for which he shared the pictures with one of the contact personnel in the unit Figure (4).

Figure 4: - Second erection after experience after discharge

DISCUSSION

The gold standard treatment for penile amputation is early reimplantation which if successful, yields satisfactory functional and cosmetic outcomes (3). 13 cases of primary penile reimplantation in world literature reported by 1975(9) performed as composite grafts. Frequent complication being necrosis of distal glans and skin, stricture, fistula formation and erectile dysfunction (2). Microsurgical techniques were reported by Cohen *et al* and Tamai *et al* in 1977 (10,11). Ever since, several successfully microsurgical penile re-implantations have been documented, improving survival rates, and even return of erectile function (12). Consensus on microsurgical technique involves anastomosis of the dorsal artery, veins, and nerve (13). However, to further improve functional outcome, we opted to anastomose the cavernosal arteries as well, to this, we attribute the early erection reported by our patient.

Klingsor syndrome is often associated with severe underlying psychiatric conditions or profound gender dysphoria. The psychological state of the patient significantly impacts both surgical and long-term outcomes, as untreated mental health disorders may increase the risk of post-operative non-compliance, recurrent self-harm, or poor adjustment to reconstructive procedures. Comprehensive psychiatric evaluation and management are essential components of care, ensuring the patient receives appropriate therapy and stabilization after surgery.

CONCLUSION

Penile replantation should always be attempted, to restore function and avoid major loss of self-esteem. Timely multidisciplinary intervention is priceless and psychiatric support is crucial and should be assured. Microsurgical technique is the standard management, and cavernosal arterial anastomosis promises early return of erectile function as was seen and reported by our patient.

Funding: None

Conflicts of interest: We have none to declare.

Ethical approval: N/A

Consent: Obtained from both the father and the patient.

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