

Different Aspects of Penile Amputation; Surgery, Forensics, and Psychiatry (Case Report and Short Review)

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Abstract

Penile amputation (PA) is a rare genitourinary injury. Three main etiologies of PA consist of iatrogenic, accidental, and self-mutilation. Eighty-seven percent of the self-mutilated patients suffer from psychiatric disorders. Nowadays, microsurgical techniques with neurovascular anastomosis are the best approach for PA. This paper insists on psychiatric and legal consequences, which may involve health-care team. A 25-year-old male patient presented to our emergency department with self-inflicted PA. As he had a history of some psychiatric problems, psychiatric consultation was requested. The patient did not accept any surgical interventions. We informed his relatives completely; however, they did not agree with surgical intervention because they predicted that he might repeat amputation again. According to the forensic medicine specialist consultation, we took the coroner's warrant for emergency surgical intervention and transferred the patient to the operating room without any consent. Microsurgical penile replantation was performed. There was no leakage in retrograde pericatheter urethrography on the 3rd postoperative week, and the urethral catheter was removed. The patient was able to void normally, and cystostomy tube was removed at the same time. Consent for all medical procedures is an important part of national and international human right law and medical ethics. Physicians should inform patients about their problem and take a reliable consent. If the patient was unreliable for informed consent, relatives could do it. However, in an emergency, there is an exception in the law that let surgeons do the operation without consent for these cases.

Keywords: Forensic medicine, informed consent, penile amputation, replantation, traumatic

INTRODUCTION

Penile amputation (PA) is a rare genitourinary injury. Three main etiologies of PA consist of iatrogenic, accidental, and self-mutilation. Rarely, PA was a punishment for traitor men; for example in Thailand in the seventies.^[1] Eighty-seven percent of the self-mutilated patients suffer from psychiatric disorders.^[2] The most common psychiatric problems are schizophrenia and acute psychotic disorder. Many patients will need a psychiatric and forensics consultation for management of their psychiatric and next legal problems. In 1929, Ehrich reported the first case of macroscopic penile reimplantation. He approximated the corpora and buried the penis in the scrotum.^[3] In 1977, Cohen and *et al.* have reported a microsurgical method for repairing the amputated penis.^[4] In this report, tissue survival rate, sensation, skin loss, and erectile function improved considerably. Nowadays, a microsurgical technique with neurovascular anastomosis is the best option for PA. Most of the reports highlight the management of PA patients, surgical techniques and

postoperative complications. This paper insists on legal aspects, may involve the health-care team.

CASE REPORT

A 25-year-old male patient presented to our emergency department with self-inflicted PA. The patient had amputated the penis at the mid-portion of the shaft using a sharp blade and controlled the bleeding by direct pressure to proximal part of the amputated penis [Figure 1]. The patient referred to hospital 30 min after mutilation by his family while he had his penis in hands. The patient was stable, and blood hemoglobin level was 15.5 g/dl at presentation. We covered the distal part of the penis in plastic wrap and put it in cool box for implantation [Figure 2].

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The patient had been suffering from schizophrenia 2 years before he referred to our emergency department. However, he had discontinued antipsychotic treatment 2 months ago. He disagreed with replantation with no reasonable explanation. As the patient had a history of psychiatric disorder, psychiatric consultation was requested, and acute psychotic disorder was established. Our patient did not want any surgical interventions, and his consent was unreliable due to psychosis. Thus, we informed his relatives completely. However, they did not accept the treatment because they predicted that he might repeat amputation again. Forensics consultation was requested immediately. The coroner's edict was that the surgery should be performed as soon as possible with no need for any relative consent. However, the patient's family did not allowed us to do the operation. Thus, the patient was transferred to the plastic surgery center with a police escort.

A team of urologist and plastic surgeon were involved in the operation. After induction of the general anesthesia, the proximal stump bleeding was controlled using a tourniquet. The amputated penis was cleaned carefully with cold sterile saline solution, about 5 mm from the corpus cavernosa of the amputated part was removed shapely to ensure tension-free anastomosis of the urethra and neurovascular components and dorsal vein, arteries, and nerves were identified [Figure 3].

Suprapubic cystostomy was inserted. Tunica albuginea was reapproximated by 3-0 vycrile in a watertight fashion. Then, both ends of the urethra were spatulated and urethral mucosa, adventitia and corpus spongiosum were approximated in separate layers using interrupted 3-0 vycrile sutures. Dorsal arteries, dorsal veins and nerves were identified and anastomosed by 10-0 nylon. The dartos fascia approximated by interrupted 5-0 vycrile and skin by 4-0 chromic catgut suture [Figure 4]. Revascularization was done 4 h after the amputation and penis looked well-vascularized.

Postoperatively, cefazoline and heparin was administered. Psychiatric consultation was done again and resperidone and bipyridine were prescribed. His two hands were restricted on the 1st postoperative day. On the 3rd day, congestion and hemorrhagic blisters were observed which treated by tapping blood from the corpus cavernosa and blisters [Figure 5]. Patient discharged at 5th day on topical and oral antibiotics and analgesic. The patient lost penis skin after 2 weeks [Figure 6]. There was no anastomotic leakage in pericatheter retrograde urethrogram at the 3rd postoperative week [Figure 7]. A urethral catheter was removed and the patient made an effort for micturition. The patient was able to void normally. Thus, cystostomy tube was removed at the same time. Penile split-thickness skin graft was performed after 2 months.



Figure 1: Proximal penile stump



Figure 2: Distal penile stump



Figure 3: Cross-sectional anatomy of the Penis



Figure 4: Urethra was repaired over urinary catheter



Figure 5: Congestion and hemorrhagic blisters were drained



Figure 6: Penile skin was lost at the 2nd postoperative week



Figure 7: Pericatheter retrograde urethrography showed no anastomotic leakage at 3rd postoperative week

DISCUSSION

Penile amputation is a rare injury. Self-mutilation, trauma, and amputation followed by disputes are the possible cause of PA in adult patients. In pediatrics, the main etiology of PA is circumcision. Self-mutilation due to psychiatric disorders

is a common etiology of PA in the western societies.^[5] In our patient, he had been suffering from schizophrenia 2 years before he referred to our emergency department. However, he had discontinued antipsychotic treatment two months ago.

Sweeny and Zamecnik found that a previous history of self-mutilation and self-imposed change in physical appearance are important factors for mutilation.^[6] Nakaya m revealed that sexual conflicts in a patient with religious psychotic experiences bring him to act.^[7] Our patient was proper in appearance while even primarily psychiatrist had doubt for diagnosis. He had a sexual guilt feeling that was appeared during the interview.

Informed consent for all nonemergent medical procedures is an important part of national and international human right law and medical ethics.^[8] In Iranian constitution, physicians should inform patients of their problem and take a reliable consent.^[9] If the patients are incapable of consent, relative can do it.^[10] There is an exception in the law for emergency surgery that let surgeons do the operation without consent.^[10] As mentioned, our patient did not accept any surgical interventions, and his consent was unreliable due to psychosis. Although we were informed his relatives completely, they did not totally agree with surgical intervention. Eventually, we transferred the patient to the operation room without any consent due to emergency. We had the corners warrant for emergency surgery before the operation.

The amputated part of the penis can be alive up to 16 h in warm status and 24 h at hypothermic status.^[11] In this patient, the surgery was performed after about 3 h. Microvascular replantation was first reported by Cohen *et al.* at 1977.^[4] The cosmetic result of microvascular replantation is satisfying although skin loss is a common complication. Similarly, our patient lost his penile skin just 2 weeks after replantation. A urethral stricture is an uncommon event, which was not observed in our patient.

CONCLUSION

Penile amputation is an urgent situation and an operation should be performed immediately after admission to the hospital. In urgent and emergent situations, there is no need for patient's consent before the operation.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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