**Introduction**

External genitalia injuries are involved in one-third to two-third of genitourinary trauma [1]. Traumatic penile amputation is a rare urological emergency [2, 3]. The main causes include accident, circumcision, assault, and self-mutilation related to psychiatric disorders [4]. Traumatic penile amputation causes functional and psychological consequences and impacts the patient's quality of life [5]. There are many case reports of penile amputation mostly auto inflicted in the setting of psychiatric condition, however it is very notable when the trauma is intentionally caused by patient’s wife. Some cases have been reported in Thailand between 1973 and 1977 [6]. But nowadays, penile amputations resulting from felonious assault are no longer reported in medical literature. The aim of this report is to describe traumatic phallic mutilation committed by a jealous spouse.

**Case Presentation**

A forty-year-old man was referred from a district medical center to our urology service for complete penile amputation. He was not previously known as a psychiatric patient. The patient had been married to a thirty-five-year-old woman for ten years. They had three children. His spouse suspected him of having extramarital relationship with another woman. The day of the incident, he came back home very late in the night. After sexual intercourse, as the husband was sleeping and still nude, she took a sharp kitchen knife and cut his penis off and run away from the house. The victim presented to our hospital 11 hours after his penis amputation. On admission, the patient was in a stable clinical condition. His temperature was 37.6°C, blood pressure was 120/90 mmHg and the pulse rate was regular at 80 beats per minute. The
proximal stump of the penis was covered by a bandage stained with blood. The amputated penis was kept into normal saline solution for about 6 hours.

The patient was taken to the operating room and was examined under anesthesia. Exploration revealed section of the penis at its base leaving 2cm of penis. The proximal stump was very hemorrhagic (Fig.1A). The testicles were found to be intact. The amputated penis looked viable (Fig.1B).

A 16 Fr Foley catheter was inserted through the urethral stump. For bleeding control, a rubber band was placed around the proximal stump of the penis. The patient benefited from the administration of antitetic serum in addition to resuscitation medication. Surgical penile replantation was performed (Fig.1C). Postoperative complications were necrosis of the skin covering the replanted penis followed by necrosis of the entire distal penis at post-operative 7 day (Figure.1D).

He subsequently underwent an urethrostomy because of penile necrosis. (Figure.2). Postoperative course was unremarkable. The patient went home two weeks later. He was able to urinate through his urethra. Psychiatry consultation was planned given the severity of the penile injury.
Discussion

Traumatic penile amputation is an uncommon event among urological emergencies in our society. The rare cases still encountered are mostly related to self-inflicted penile amputation in adult psychotic patients. In children, the commonest cause of penile amputation include car accidents and traumatic circumcision [7, 8, 9]. Intentional penile amputation due to the spouse is from another age. Some epidemic cases have been reported more than forty years ago implicating Thailand’s wives against their philandering husbands [6]. In our case the incident has been committed for the same reasons. The guilty wife was not known to have underlying psychiatric disorders. She just carried out a plan to give a proper punishment to her husband. Regarding the management of the patient an urethrostomy was performed after the failure of penile replantation.

It is known that penile replantation should be the best treatment after traumatic amputation. There is no a standardized evidence-based approach [7] but this requires a good preservation of the amputated part [2]. But in all cases an attempt to salvage the penis should be made [10]. Unfortunately, in some situations, like in our patient this surgery is not successful. The outcome depends on the preservation of the penis, the elapsed time before the surgery and the availability of qualified surgical team [2, 3].

The first element to be considered is the timing. The outcomes of penile replantation depend on the ischemia time. It takes into account the duration of warm and cold ischemia. Hypothermia is known to have an advantage on tissue survival [3]. According to the British Association of Urological Surgeons, replantation can be attempted up to 24 h after the injury. Warm ischemia time of 4h and cold ischemia time of 16h are allowed. The success rate is very low beyond 24 h [2]. In our patient ischemia time was 11 hours. The cold ischemia time was 5h while warm ischemia time was 6h. However the preservation of the penis was not adequate. The decision of penile replantation has been taken because of the short duration of ischemia time that was overall below 24 hours.

The quality of amputated penis is also important. One goal for successful penile replantation is to ensure proper transport of distal penile segment [11]. It must be viable to be reattached. The amputated penis must be wrapped in saline soaked gauze and placed in a bag of ice. It must not be in direct contact with the ice [2]. In our case the amputated phallus was wrapped in saline solution 6h before it is put in contact with ice for 5h.

The third thing to take into account is the surgical team. Microvascular anastomosis is the preferred technique for penile replantation. It requires experienced urologists, plastic surgeons or vascular surgeons with microsurgical skills [2]. Microsurgical revascularization and approximation of the penile shaft structures have a real benefit on penile replant survival, erectile and voiding functions [10, 11, 12]. Macrovascular technique can also be used, but there is a higher rate of failure and skin necrosis.
[2]. In a systematic meta-analysis detailed by Li et al. [13], there was an increased incidence of erectile dysfunction, urethral stricture in the patients treated without microscope. Given the unavailability of surgical expertise team for microsurgical procedure, a non-microsurgical replantation was performed in our case.

Finally, the conditions for successful penile replantation were not satisfied in our patient. Microsurgical approach is one of the keys to success of penile replantation [2]. Unfortunately, it requires necessary instruments and expertise in microsurgery not always available in our hospitals.

**CONCLUSION**

Penile amputation as a sanction to philandering husbands is a rare event. It may have functional and psychological consequences that impact the victim for life. Microvascular phallic replantation can help to preserve body image and support the burden of this mutilation. But most of the time the surgeons for many reasons cannot perform this procedure. They are restricted to carry out non-microvascular replantation or urethrostomy as in our patient. In all cases psychiatric follow-up is mandatory.

**REFERENCES**


