

Gunshot injury to the penis: A case report

Peniste kurşun yaralanması: Olgu sunumu

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ABSTRACT

Civilian penetrating injuries to the penis are extremely rare. We present a case of 47-year-old man who was referred to the emergency department of our clinic with penetrating gunshot injury to the penis. The lesion was on the corpora cavernosa and the patient underwent urgent surgery. In two months of follow-up, he had a normal penile ultrasound findings and a normal sexual activity.

Keywords: penis; gunshot injury; penile trauma.

INTRODUCTION

Gunshot injuries to the penis are quite rare in civilians. These lesions are commonly associated with injuries to the other organs (1). In literature, the reports about this issue are generally restricted to the military injuries. There are only a few reports about civilian injuries and isolated penile injury is quite infrequent (2). Fortunately in civilian penile gunshot injuries, minimal tissue destruction is seen, and minimal debridement is needed. However if corporal injuries are suspected, penile exploration is warranted (1). Herein, we present a 47-year-old man who was referred to the emergency department of our clinic with penetrating gunshot injury to the penis crossing bilateral cavernous bodies and glans penis without any other associated organ damages.

CASE REPORT

A 47 years old male patient was admitted to the emergency department with penetrating gunshot injury to the penis, the injury occurred about 30 minutes before. His vital signs were stable with normal hemodynamic features. In urogenital examination, he was circumcised, the meatus was normal and there was a bleeding and a defect of an approximately 1 cm in diameter with a scorch around on left upper lateral part of the glans penis. Moreover,

ÖZET

Sivil hayatında penisin delici yaralanmaları son derece nadirdir. Biz burada acil servise peniste ateşli silahla yaralanması nedeniyle getirilen, 47 yaşında erkek hastayı sunuyoruz. Her iki kavernoöz cisim penetran olarak yaralanmıştı ve hasta acil olarak opere edildi, ve primer tamir edildi. İki ay sonraki muayenesinde penil ultrason bulguları normaldi ve hasta normal seksüel aktivitesine dönebilmişti.

Anahtar kelimeler : penis, ateşli silah yaralanması, penil travma

on right lateral and ventral parts of penis, there was a subcutaneous hematoma and edema. There was an exit hole on the right inguinal canal and in continuity with this there were entrance and exit wounds on the superior medial and lateral parts of thigh. His popliteal and femoral pulses were palpable. No testicular injury or active bleeding was detected on the physical examination or ultrasound. In penile Doppler ultrasound no blood flow on the 1/3 distal parts of the left and right cavernosal arteries was present (Fig. 3). The patient was taken to the operation room with these conditions. Cefazolin (1 g), gentamicin (160 mg) were administered one hour before surgery for prophylaxis. Although urethrorrhagia was not present, cystoscopy was performed and there was a hyperemic area on ureter just behind the fossa navicularis on 12 o'clock position but there was not any injury. The patient was taken to the supine position, after a circumferential incision, the skin was degloved and a gunshot injury starting with an entrance wound on left lateral part of glans, passing transversely through the superior 1/3 distal part of left cavernous and then through the lateral of the middle part of right cavernous, travelling subcutaneously and exiting from right groin region was observed (Figure 1).



Figure 1. Exit end entrance of the bullet in penile shaft.

First, right cavernous tunica albuginea was repaired with 3/0 vicryl and then the entrance orifice was repaired with 3/0 rapid vicryl and a 16F Foley catheter was inserted. The postoperative period was uneventful and the patient was discharged from the hospital on the fifth day after surgery. The Foley catheter was removed on 14th day (Figure 2). The patient had spontaneous micturition. In two months of follow-up the patient had a normal penile ultrasound morphology and a normal sexual activity.



Figure 2. Uncomplicated healing after penile surgical repair

DISCUSSION

In civilian life, gunshot penile injuries are extremely rare. We aimed to present this case in order to report our observation on the long-term effects of a gunshot injury crossing bilateral cavernous bod-

ies and glans penis on erection. There are only a few reports about the civilian solitary penile damages (2). In a study on 2941 civilian gunshot wound patients, it has been determined that penis was effected on 8% of cases and 92% of the cases with genitourinary damage experienced at least one other organ injury (3). The use of the injury severity score from the American Association for the Surgery of Trauma (AAST) is being applied to facilitate uniform treatment of genitalia lesions. According to this classification, superficial lesions and contusions are classified as degree I and can be conservatively treated. Lesions classified as degree II (Buck fascia lacerations without tissue loss), degree III (cutaneous avulsion or laceration through glands and meatus, or urethral or cavernosum lesions less than 2 cm in area), degree IV (partial penectomy or urethral or cavernosum lesions more than 2 cm in area), and degree V (total penectomy) are recommended to be treated with surgery (4). Our case was on degree III according to this classification. In gunshot injuries, penile wounds are accompanied by urethral and scrotal damages (5). In a report of 43 cases, the urethral damage ratio was 33% (6). In that aspect, urethra-graphical evaluation is essential in penile injuries (7). Clinicians should be aware of this co-existence since in presence of any urethral damage, insertion of urethral catheters should be avoided. In our case, since any bleeding from urethra was not present and peroperative cystoscopy was scheduled, urethra-graphical evaluation was not performed. Early surgical exploration, debridement of the wounded structures and primary lesion repair are the most important points for the success in the treatment of penile lesions from gunshot wounds (8). Since the patient was admitted to the emergency department within minutes after the injury, he had the chance of early interventions and in emergent conditions wound debridement and primary repair were performed. The magnitude of injuries associated with guns is related to the caliber and velocity of the missile (6). It has been reported that in all gunshot penile injuries emergent surgical exploration of the injured area is essential (8). Surgical exploration allows us to learn the extent of the injuries and to judge about the treatment in addition to the opportunity of prompt treatment(9). Our patient did not have an injury to the urethra, testes, or vasa deferentia, and therefore an emergent surgical exploration was performed with primary suture of the corpora cavernosa with optimum aesthetic and functional results at 2 months after surgery.

In conclusion, in a follow-up period of two months, a normal penile morphology and a normal sexual activity has been achieved in this patient who had a gunshot injury crossing bilateral cavernous bodies and glans penis with an emergent surgical repair. Since such civilian penile injuries are rare, large series of these patients and comparison of different treatment modalities is not possible. However, prompt evaluation and treatment is essential in penile injuries.

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