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<http://www.pediatricurologycasereports.com>**Management of the scrotal trauma caused by an air-compressed gun in a child: A case report****Ugur Uyeturk***Department of Urology, Bolu Abant Izzet Baysal University, Medical School, Bolu, Turkey***ABSTRACT**

Children exposed to air gun pellets may also have a different clinical picture, from mild tissue damage to life-threatening injury. Although these weapons are known as toys, there has been a significant increase in the muzzle velocity of these weapons with advances in gas technology, recently. Air gun injuries are frequently presented in head, neck and thorax region, but injuries in genitourinary tract are rare in children. Here, we report a 12-year-old boy who was injured by a random shot with an air gun, due to the features of his diagnosis and treatment.

**Key Words:** Air gun; pellet gun injuries; scrotal injury; child.

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**Introduction**

Air-powered guns are mostly used in sports entertainment, but they can lead to fatal injuries due to advances in technology and inappropriate use [1,2]. In the United States, over 30,000 bullet ball or pellet gun injuries per year are brought to the emergency room, of which over 2,000 need hospitalization. In addition, the majority of these victims are under 18 years old [2,3]. Air guns can cause injury to many organs or tissues including abdomen, thorax, cranial, eye, inguinal, penile and skin [4-8]. Here, we present a process for

the treatment of isolated scrotal injury caused by a compressed air gun in a child.

**Case report**

A 12-year-old boy was admitted to our clinic due to an accidental gunshot injury to the left scrotal region. In the patient's story, it was understood that the incident occurred 5 hours ago and during the football game. The patient was injured by a random shot of a 14-year-old boy with an air gun. The entrance hole of the pellet was 1/4 upper lateral region of the left scrotum. At the point of entry, there was 0.5 cm tissue loss and a hyperemia of 2 cm diameter (Fig.1). The patient was clinically stable. X-ray radiography showed a pellet at a scrotal depth (Fig. 2). The patient was operated under general anesthesia. The pellet was removed 3 cm deep from the entry point of the scrotum and more inferiorly (Fig. 3).



**Fig. 1.** The left scrotal entry site of the pellet.



**Fig. 2.** Plain x-ray showing a pellet in the left scrotal region.

There was no injury in the testis and epididymis. It was found that the pellet was at a point adjacent to the epididymis (Fig. 4). The patient was well after the operation and was discharged in good condition the following day.



**Fig. 3.** Effect of the pellet close to pampiniform plexus.



**Fig 4.** The pellet removed from the patient's scrotum.

### **Discussion**

Although most people think of air guns as a toy product, nowadays, these air guns, which are produced by modern technology, cause serious or even fatal injuries [6,8]. Thus, the latest models of air guns and user modifications caused an increase in pellet velocity and tissue damage. In fatal cases, pellets often cause damage to one part of the brain [9,10]. Although organ injuries such as head, eye,

neck, thorax and abdomen with air guns are frequently reported in children, the genitourinary region is rarely injured [4-8]. Injuries with an air gun usually occur when a person accidentally hits himself or someone else [9]. Additionally, in many countries, because air guns are easy to obtain, they are not subject to any law and do not require a license, the rate of injury with these weapons is increasing [8,11].

In the treatment of penetrating injuries with pneumatic weapons, the pellets are easily accessible in areas where wound debridement and foreign body removal, and vital organs such as brain are treated conservatively [10,12,13].

As a result, air-gun pellet injuries of the genitourinary site are rarely caused by children playing with compressed air toys and guns. It should be carefully researched whether serious injury to this tissue has occurred. Plain radiographs and computerized tomography are diagnostic tools that can be used for this purpose. Surgical removal is recommended if the pellet is accessible. Pellets, which may be deeper or may cause significant damage by interference may be left in place. Such patients are followed up with antibiotic treatment. Additionally, it is also important to raise awareness among parents, children and legislators about the risk of these weapons.

### **Compliance with ethical statements**

*Conflicts of Interest: None.*

*Financial disclosure: None.*

*Consent: All photos were taken with parental consent.*

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