Case Report / *Olgu Sunumu*

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Soft Tissue Abscess Secondary to Toy Gun Pellet Related Blunt Trauma; A Case Report

Oyuncak Silah Mermisiyle Oluşan Künt Travmaya Sekonder Yumuşak Doku Apsesi; Olgu Sunumu

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Abstract

Traumas with toys may lead to morbidity and mortality. Rarely, in traumas with toy guns, infection-related complications has been reported. A three-year-old girl was treated with antibiotics and surgical drainage for abscess that occur at her ankle after toy gun bullet trauma. Features of toys should be checked legally and controlled by parents.

Keywords: Toy gun, blunt trauma, abscess

Özet

Oyuncaklarla oluşan travmalar morbiditeye ve mortaliteye neden olabilir. Oyuncak silahlarla oluşan travmalarda enfeksiyonla ilişkili komplikasyonlar nadiren bildirilmiştir. Üç yaşında kız hasta sol ayak bileğinde oyuncak silah mermisi çarptıktan sonra gelişen apse nedeniyle antibiyoterapi ve apse drenajı uygulanarak tedavi edilmiştir. Oyuncakların özelliklerinin yasal olarak denetlenmesi ve ebeveynler tarafından kontrol edilmesi gerekmektedir.

Anahtar Kelimeler: Oyuncak silah, künt travma, apse

Introduction

Toys contribute to the entertainment and education of children. However, the toys that have not been appropriately manufactured may lead to poisoning, choking and injury. The traumas caused by toy guns may result in traumas, serious injuries or death (1-4). A three-year-old girl was treated with antibiotics and surgical abscess drainage for the soft tissue abscess formation at her ankle after a toy gun bullet hit her left ankle. This case is presented to emphasize that a non-penetrating trauma caused by a toy gun bullet may lead to morbidity associated with infection.

Case Report

A three-year-old girl was admitted with complaining of a three-week old swelling at her left ankle. It was told that a toy gun bullet had hit the ankle one week before the swelling started. In the physical examination, an approximately 5 cm mass lesion, swollen from skin, with erythema and edema, pained with palpation was detected in the area between the left foot inner malleolus, 1st metatarsal and the heel (Figure 1). The laboratory assays showed white cell count as 12.700/mm^3 (70% neutrophils, 30% lymphocytes), C-reactive protein as 17.4 mg/L (0-5), erythrocyte sedimentation rate as 45 mm/h.

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ultrasonography showed a 32 x 14 mm, heterogeneous, hypoechoic, well-circumscribed mass lesion at the left foot medial region and colored Doppler ultrasound showed intense arterial blood flow. With the preliminary diagnosis as soft tissue infection intravenous ampicillin-sulbactam was started. The magnetic resonance imaging carried out to assess bone and joint involvement showed appearance compatible with abscess with septations in the lesion area; bone and joint involvement has not been observed (Figure 2). With softening of the mass at the ankle, the abscess drained surgically on the eighth day of the antibiotic treatment. No pathogen growth was detected in the abscess material nor in blood culture. No additional problems were observed at the infection site and the patient was discharged, after completing the antibiotic treatment to two weeks. There were no problems during the two-year follow-up of the patient.

Figure 1. Mass lesion of about 5 cm diameter, swollen from skin, with erythema and edema in the area between the left foot inner malleolus, 1st metatarsal and the heel.

Figure 2. Abscess formation with septations in the medial of 1st metatars in the magnetic resonance imaging of the left foot.

Discussion

The seriousness of the injuries caused by toy gun bullets have poorly understood by children, parents and healthcare personnel. Since the toy guns that were recently produced have become more powerful, their potential to cause serious damage has also increased (5,6). Such injuries are mostly seen in boys because of their interest in guns (2,3,7-9). In our case report, the toy that caused the trauma belonged to the brother of the patient. Thus, it is apparent that toy guns also pose danger for the persons around.

In injuries caused by toy guns, the morbidity and mortality is mostly associated with the traumas at the head-neck region (5,10). In injuries of intracranial penetrations, mortality can be seen (3,11,12). Eye traumas may lead to loss of sight. Arterial injuries have been reported in extremity traumas (13). In the present case, the complication that has developed despite a non-penetrating trauma in the lower extremity has led to hospitalization and a "simple" surgical intervention. Therefore, the damage that may be caused by toy guns should not be ignored.

Development of infectious complications has been reported in penetrating traumas caused by toys (4,11,14,15). However, no information was found in the literature concerning infection development in non-penetrating traumas. In the present case, abscess in the soft tissue developed despite non-penetrating trauma. Although this abscess had not developed in a vital organ, it has caused morbidity. Although toy guns are considered as toys, there should be legal restrictions concerning their sales and usage since they can lead mortality and morbidity.

Informed Consent: Written patient consent was obtained from the patient's family.

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