Penetrating Lung Injury Caused by a Close-Range Blank Cartridge Pistol Shot: A Case Report

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Abstract

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INTRODUCTION: Originally blank cartridges (BCs) were designed and produced for the training purposes of the Prussian army. Today, these guns or ammunitions are used for military training manoeuvres or funeral honours, in starter pistols to signal the beginning of races and entertainment industries such as in historical re-enactments, theatre and movie special effects. BC describes special type of ammunition that discharge sound and gas flares, but no bullet or shot. Contrary to their production purpose; BCs have become very popular in society and amongst criminals due to their low price, easy to provide, easy convert into firearms and obscure legal status. Therefore, morbidity and mortality affiliated to BCs are increasing. Several cases were represented in the literature since its first described in 1865 by Hamilton [1,2]. Herein, we represent penetrating lung injury due to the firing of a gun with a blank cartridge, with attempted murder.

CASE PRESENTATION: A 17-year-old male was brought to the emergency department with chest injury by gunshot from a blank cartridge. Upon examination, a single entrance wound at the left 4th intercostal space in the midclavicular line without exit wound and subcutaneous emphysema was observed. Any projectile or fragments were seen in radiological examination of the body. CT scans revealed left hemopneumothorax, lacerations and contusion of the left lung. The patient underwent left thoracotomy along with wedge resection of lingular segment of upper lobe. He was discharged on 9th postoperative day without any complaints.

DISCUSSION: In most of the countries as in Turkey; BCs generally are not considered firearms and regarded as harmless or toys. That's why, they are sold without licensed or with few restrictions and their use is poorly supervised. BCs are generally loaded with black powder or nitrocellulose that detonates rather than burns. The gas pressure that is emerged in an explosion at the muzzle when a BC is fired acts like a bullet in close or contact range. This pressure or invisible bullets can be powerful enough to penetrate the soft tissue and even in bones. They can lead severe and fatal injuries even without any modification [3].

CONCLUSIONS: Chest injuries due to blank cartridges have rarely been reported in literature. The “blank” word gives a false sense of safety to people. Although blank cartridges do not contain a bullet, precautions are still required because of the fatalities and severe injuries have resulted on occasions when blank cartridges have been fired at very close ranges.


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