

# İntihar Omzu: Bir Olgu Sunumu

The Suicide Shoulder: A Case Report

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## Anahtar Sözcükler:

Ateşli silah İntihar Omuz Olgu sunumları

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## ÖZ

İntihar, önde gelen ölüm nedenleri arasında olmamasına rağmen bir halk sağlığı önceliği olmalıdır. Dünya sağlık örgütü verilerine göre, her yıl yüz binlerce insan intihar ederek hayatlarına son veriyor. İntihar etmek için kullanılan yöntemler çok çeşitlidir. En yaygın yöntem aşırı ilaç kullanımıdır. Literatürde intihar omuzu olarak tanımlanmış olan nadir bir ateşli silah yaralanması olgusunu sunduk.

#### **ABSTRACT**

Suicide needs to be a public health priority, although it is not among the leading causes of death. According to the data of the world health organization, every year hundreds of thousands of people end their lives by committing suicide. The methods used for committing suicide are very diverse. The most common method is excessive drug use. We present a rare case of firearm injury, which has been described as a suicide shoulder in the literature.

## Introduction

Suicide is the act of somebody's ending his or her own life by any tool, drug, or intervention before completing his or her physiological life. According to the data of the world health organization, approximately 800,000 people die every year because of suicide. Suicide attempt count is even 20 times greater than this number (1).

When the people in Turkey who committed suicide are analyzed according to the age group, 34.3% of those who committed suicide in 2015 are aged between 15-29. According to the gender, women mostly commit suicide in 15-19 age group (18%), while men mostly commit suicide in 20-24 age group (12.8%). 33.3% of men and 46% of women who committed suicide are under the age of 30 (2). Current researches link suicide with affected serotonergic and dopaminergic systems. Serotonin receptor dysfunction and low serotonin levels have been demonstrated in people attempting suicide (3).

While the most commonly used method in suicide attempts is medicine or toxic substance, firearms are among the rare causes. The most frequently targeted area

in suicides with firearms is the head. More rarely, the chest is targeted. In cases where the chest is targeted, the sternum and midline chest are mostly targeted. In this case report, a rare case of ours is presented in which shoulder area is targeted with the gunshot for suicidal purpose.

## **Case Report**

A 61-year-old male patient was brought to the emergency room with the complaint of shooting on his left shoulder for a suicidal purpose at his home. The patient who has been addicted to alcohol for about 25 years developed benzodiazepine abuse during addiction treatment. It was learned that he has experienced delirium tremens-like symptoms because of benzodiazepine abuse 15 years ago. One year ago, he has been hospitalized for alcohol addiction treatment.

The patient's clinical findings were as following; blood pressure: 148/90 mmHg, spo2: 95%, pulse rate: 96/min and all pulses could be taken. Glasgow coma scale score was 15. In his neurological examination, there was no neurological deficit, not even on the left upper extremity.



There was a gunshot wound with an open bone fracture on the left shoulder. The wound was 10 cm in diameter and the skin, subcutaneous tissue, and deltoid muscle penetration were present. The head of the left humerus was completely exposed. The deltoid muscle was totally ruptured. The dirty foreign matter was scattered into muscle and bone. Muscle tissue and skin edges were necrotic. The bone defect was present in the tuberculum majus region at the head of the humerus. The anterola-teral part of the acromion bone was totally lost. No bleeding with vascular origin was observed. No trace of gunshot injury was found in other parts of his body. In the computed tomography angiography of the patient, it was observed that arterial structures were preserved and there was a fracture at the head of the humerus (Figure 1-2).

Empirically, ceftriaxone 1 g twice a day and metronidazole 500 mg three times a day were given intravenously. Abundant washing was done, necrotic tissues were debrided. Foreign bodies were removed. Burned muscle, skin, and subcutaneous tissues were revitalized and cleaned until there was adequate blood supply. The wound was

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**Figure 1.** Shoulder computed tomography without intravenous contrast media. 3D image Bone defect in the tuberculum majus region at the head of the humerus and anterolateral part of the acromion bone (\*). A fracture at the head of the humerus (\*\*).

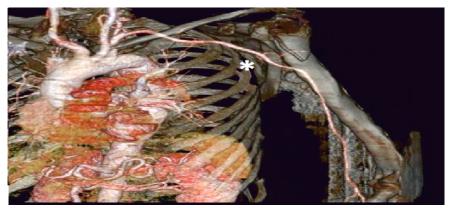


Figure 2. The computerized tomography angiography, arterial structures were preserved (\*).

closed after bleeding control. After the operation, the patient still had symptoms of depression. The patient was consulted with psychiatry. Psychiatric treatment was organized as alprazolam 0.5 mg twice a day orally, olanzapine 5 mg tabs once a day orally, and mirtazapine 15 mg once a day orally. The patient was discharged without neurological or vascular complications on the third postoperative day. Consent form was taken from the patient.

#### **Discussion**

Suicide is a serious social problem in the world, especially for developed countries such as Iceland, the United States, Finland, and France. A wide variety of studies are made, and measures are taken to solve this problem. The etiology of suicide attempts includes psychological disorders, severe family incompatibility, economic problems, alcohol, and substance abuse. Individuals with the highest risk for suicide are those with psychiatric disorders, alcohol or substance abuse, adolescents, the elderly, and patients with chronic

diseases (4). Ease of access to weapons increases the risk of attempting suicide with a gun. In their study, Conwell et al. alleged that restricting access to arms would reduce suicide cases (5). In our case, having a history of depression, being male gender, alcohol dependence, and having hunting rifle at home were the increased risk factors for suicide with firearms. Bukur et al showed that the most frequently injured body area was the head (76.4%) in suicide attempts with firearm injury. In the same study, they showed that the least common injury type was upper extremity injury (4.2%) (6).

In their study, Zsoldos et al. presented a series of seven patients who had severe shoulder injuries due to gunshot wounds. They described the mechanism of injury as the up and out movement of the barrels of long-barreled weapons when the trigger was pulled. They defined this injury, which was in the form of self-injury with a shotgun, as a shoulder of suicide (7). Early arthrodesis, recurrent debridement, and wound care are the main



treatment modalities in the treatment of suicide shoulder. Our case, on the other hand, differs from others by attempting suicide by shooting on his left shoulder. The main reason for the patient to shoot on his left shoulder might be using his right hand in his daily life. At the same time, it was thought that the left shoulder should be the most suitable area for positioning the gun to pull the trigger due

**Yazarlık katkısı:** Fikir/Hipotez: AÖ, SÖ Tasarım: AÖ, SÖ Veri toplama/Veri işleme: AÖ, SÖ Veri analizi: AÖ, SÖ Makalenin hazırlanması: AÖ, SÖ Makalenin kontrolü: AÖ, SÖ

Etik Kurul Onayı: Gerekli değildir.

Hasta Onayı: Olgu sunumu için izin alınmıştır.

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to the long barrel of the gun. In the management of the case, arthrodesis was not required, and soft tissue debridement and wound care were preferred.

As a result, suicide attempt with a firearm is a clinical condition especially seen in men and often results in death. Although the head is usually targeted with a firearm, targeting the upper limb is extremely rare.

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