A Massive Heart Injury Due to Military Firearm

Askeri Silaha Bağlı Masif Kalp Yaralanması

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A 36-year-old male was taken to the emergency unit with a bullet entry in his right midclavicular line of the third intercostal space (Figure 1). He was unconscious with no palpable pulses. He has been under cardiopulmonary resuscitation for at least forty-five minutes during transportation. Endotracheal intubation was performed, and he was directly transported to the operating room with no delays. An emergent left thoracotomy revealed a gross hematoma in the thorax. After performing median sternotomy and pericardiectomy, a gross injury of the heart was seen (Figure 2). The right ventricle, inferior vena cava, superior vena cava, aorta, and right pulmonary veins were destructed (Figure 3). The left side of the heart was relatively unaffected (Figure 4). He was accepted as exitus, and this massive heart injury was photographed in detail for a scientific report (Figure 5).

The bullet was assumed to enter the thoracic cavity from cranial to caudal following an inferomedial route with the destruction of the right heart cavities and major vessels down to the left diaphragm. No exit...
hole was detected. The captain was thought to be in a prone position in the trench while he was shot. The bullet was said to be a 7.65 mm in caliber originated from an AK-47 assault rifle by the eyewitnesses.

Whatever the type of missile, more important is the entrance profile, the path traveled through the body, the physical features such as kinetic energy, fragmentation, the stability of the missile, and the biological characteristics of the tissues in determining the extent of the injury. Thus, the exploration of the wound should not be based only on the involvement of a high-velocity or low-velocity weapon.3

![FIGURE 1: Bullet entry site on the right third intercostal space. Median sternotomy reveals heart injury.](image1)

![FIGURE 2: Median sternotomy and pericardiotomy, a gross injury of the heart.](image2)

![FIGURE 3: The right ventricle, inferior vena cava, superior vena cava, aorta, and right pulmonary veins were destructed.](image3)

![FIGURE 4: The left side of the heart was relatively intact.](image4)

![FIGURE 5: Ruptured inferior vena cava.](image5)
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Authorship Contributions
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