



Pathology Biology Section - 2012

G15 Stab Wound in the Neck: An Unusual Case of Suicide

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The goal of this presentation is to report an uncommon case of suicide by stab wounds in the neck and to underline the need of a complete forensic approach through autopsy with special techniques for the dissection and examinations of the neck structures, histological, and toxicological ancillary examinations, as the only way for a better understanding of the mechanism of death.

This presentation will impact the forensic science community by showing how useful a formaldehyde fixation of the neck organs could be allowing an easier dissection of this area and better identification of the injuries.

In forensic contexts, stab wounds usually have a homicide etiology. The severity of the wounds is based mainly on the location, depth of penetration, the type of weapon (knife length, shape, straight or serrated), and manner of assault.

Stab wounds to the chest are usually lethal. They can result in rupture of the lung, marked bleeding within the chest cavity, or penetration of the heart. Stab wounds to the abdomen could result in trespassing internal organs or vessels with fast or slow bleeding inside the abdomen. In the neck, even a single stab wound, because of the multitude of organ systems in this part of the body, is capable of producing considerable harm.

Suicide caused by a stab wound in the neck is unusual in the forensic literature. A case of suicide is presented, in which the victim, resident in a retirement home and with amputation of lower limbs, uses a small penknife with a 6.5cm blade to commit suicide. He was found in his room, still conscious, bleeding from the neck and expressing his suicide intentions – “*I want to die, I want to cut the carotids.*”

When admitted at the emergency room he has hemodynamically stable but with respiratory distress and hemoptysis. He developed hypoventilation and bradycardia and died after two hours. Resuscitation procedures were carried out.

During the autopsy the external examination found a single fusiform wound in the anterior view of the neck and two superficial wounds, affecting only the epidermis. However, the internal examination shows multiple injuries at the cervical fascia and at the muscles of the anterior cervical region. Injuries at the thyroid cartilage were also found but none at important vessels. The lungs had a mottled appearance. The neck organs were removed *en bloc* and subjected to formaldehyde fixation. A posterior and careful dissection allowed to better identified the paths of the blade and the injuries, some of them located at the oesophagus and pharyngo-laryngeal mucosa. Histological exams were performed as well as toxicological. The last ones revealed the presence of drugs (midazolam, lidocaine, amitriptyline, carbamazepine, and paracetamol) at therapeutic levels.

This study underlines how in cases of stab wounds of the neck, a careful autopsy involving special techniques of neck dissection must be adopted and combined with the examination of the neck organs after fixation. This previous fixation could be very useful, particularly when no vessel or spinal cord trauma was found, to explain the mechanisms of death.

Stab Wound, Neck, Formaldehyde Fixation