



H17 A Corpse in a Suitcase: A Case of Strangulation

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Learning Overview: The goal of this presentation is to report the case of a 54-year-old woman strangled and hidden in a suitcase. A careful crime scene investigation, an external examination, and a complete autopsy with the histological study of skin specimens to determine the vitality of injuries are mandatory to establish the differential diagnosis between the different types of asphyxia deaths.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by illustrating the usefulness of a multidisciplinary forensic approach by the crime scene analysis, external examination, autopsy, and histological/immunohistochemical and toxicological investigation in cases of strangulation.

A 54-year-old woman was found lifeless inside a suitcase on a cliff near a mountain road in southern Italy. The prosecutor's officer alerted the forensic pathologist, and a detailed crime scene investigation was performed. The body was found curled in a left lateral position with the head flexed. The right upper limb was abducted anteriorly, flexed and intrarotated, and the left upper limb was abducted and flexed; the flexed left hand rested on the left knee, and the lower limbs were flexed to the maximum degree, with feet twisted and placed right on the left. The head was wrapped by a jacket. The cadaveric temperature was 19°C. Rigor mortis was present in all the examined anatomical regions and hypostasis was fixed.

At autopsy, external examination revealed widespread deepithelialized areas and purplish areas on the face and the right anterior neck. The fifth metacarpal bone of the right hand demonstrated a deepithelialized area with the shape of a dental arch. The victim had multiple petechiae and areas of hemorrhage in both sclera and conjunctivae. Many reddish, half-moon-shaped deepithelialized areas were founded on the anterior side of the neck. During internal examination, the tissues of the neck were dissected in layers, revealing diffuse hemorrhagic infarction of subcutaneous tissues. Autopsy also showed airway hemorrhagic infarction, especially in the thyroid cartilage region. Diffuse subarachnoid and intraventricular hemorrhages and pulmonary petechiae were found as well. The analysis of the other organs was unremarkable. Hematoxylin and Eosin (H&E) stained histologic sections revealed polyvisceral stasis, extensive cerebral subarachnoid and intraventricular hemorrhages, pulmonary edema, and acute emphysema. An immunohistochemical investigation of skin samples was performed utilizing antibodies anti-CD15, anti-tryptase, and anti-IL15, which appear to be reliable markers of vital tissue reaction. Immunohistochemistry showed a patchy dermal strong positivity of CD15, tryptase, and IL-15, confirming a vital reaction within injured tissue. Blood toxicologic examination was negative for alcohol or drugs.

Signs of asphyxial death (i.e., petechiae, areas of hemorrhage in both sclera and conjunctivae, pulmonary edema, and acute emphysema), half-moon-shaped deepithelialized areas on the anterior side of the neck, the airway hemorrhagic infarction, and the acute vital reaction within injured tissues together allowed for confirmation of the cause of death as homicide by strangulation.

Strangulation, Homicide, Corpse Concealment