H37 Intentional Body Dismemberment: A Difficult Path for the Forensic Pathologist in the Search for Truth

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Learning Overview: After attending this presentation, attendees will better understand the importance of a systematic approach to intentional body dismemberment cases, based on radiological, autoptical, genetic, histological, immunohistochemical, and toxicological investigations.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing an overview of the most recent cases of dismemberment that occurred in Italy in the past eight years.

The term "dismemberment" is used to indicate the detachment of the limbs and/or the head from the trunk at the level of the respective joints, or the subdivision of the thorax, the abdomen or the limbs into the respective segments. Three cases of intentional body dismemberment by another individual have been analyzed at the Morgue – Umberto I General Hospital/Sapienza University of Rome to determine the identity of the victim, the causes of death, and the wound vital reaction. The identity of the victim had been ascertained during the crime scene investigation, conducted by data and photographic recovery, and subsequently confirmed by the genetic exam, which also allowed confirmation of the assignment of all the body parts to the same subject.

In one case, dismemberment of the lower limbs has been performed. In the second, both the upper limbs and the lower limbs had been detached as well as an evisceration of the thoracic and abdominal organs. In the last case, the corpse had been dismembered meticulously, so much so that it was difficult to even identify the various anatomical segments during the crime scene investigation.

In all cases, a preliminary radiological study by a total-body Postmortem Computed Tomography (PMCT) was conducted and subsequently a complete autopsy exam was performed; on the tissue samples taken at autopsy, a classic histological exam with hematoxylin/eosin and an immunohistochemical study with IL-15, CD-15, and triptase were performed in order to evaluate the wound vitality at the incised planes. Finally, with gas chromatography, toxicological tests were conducted on the biological fluids (central and peripheral blood, urine, and vitreous humor) to identify exogenous substances.

From these investigations, it was possible to identify the cause of death: in two cases, it was by violent mechanical asphyxiation perpetrated by strangulation, while in the other, it was attributed to a sharp-force injury penetrating the abdomen. Histological and immunohistochemical results have shown that the depletion had occurred postmortem in all three cases; the toxicological investigations, on the other hand, yielded positive results for exogenous substances (heroin) in one case, but not in such a concentration as to determine the death.

In all the examined cases, the dismemberment followed the murder of the victim. This practice is in fact usually performed to make the body more easily concealable; in all three cases, the perpetrator of the crime had hidden the remains of the body in plastic bags, suitcases, or similar containers to hide them. Another detail common to all cases is the accidental finding of the remains by pedestrians who passed through the area, showing that the meticulousness performed in fragmenting the victim was not applied to the concealment of the bodies.

Dismemberment, Forensic Pathology, Homicide