

## H68 The “Key” Element in a Case of False Decapitation of a Missing Person: A Case Report and Review of the Literature

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**Learning Overview:** After attending this presentation, attendees will understand the role of forensic investigations in missing persons cases.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by reporting a case of “false” decapitation of a missing person whose body was found in an advanced state of decomposition.

In Italy, according to data from the Interior Ministry, about 24 people per day disappear, of which 5 are minors. In 2016, 189,110 people disappeared in Italy, of which 43,665 were never traced. In the analysis of elderly people who have gone missing, the main cause is disorientation due to cognitive impairment, as in the case of Alzheimer’s disease. With young adults, the main reason is voluntary removal. With regard to minors, the phenomenon mainly concerns foreigners and is connected to trafficking of young slaves induced into prostitution, as well as for the sale of organs. In several cases, the missing people are later found dead following recognition or through DNA comparisons.

The coroner is responsible for identifying the body; however, identification is not easy in bodies in an advanced state of decomposition with alteration of their facial traits and without documents. Personal identification is an often complex, requiring comparison between premortem photographs, descriptions, X-rays, dental records, or biological material against that obtained at postmortem examination.

This is a case of a Caucasian unidentified body. The body was decapitated, aged between 25–35 years, found under the slopes of a hill in the province of Catanzaro. During the judicial inspection, the head appeared detached from the rest of the body, an element that led the investigators to suspect a beheading. The body was in an impenetrable cliff that was accessed through an underlying street. The body was in an advanced state of decomposition with skeletonization of the head that was located about six meters from the body. The body was immersed in large quantities of garbage that hid it. The analysis of the garments showed the presence of a number of keys inside a pocket with large lacerations. An investigation of the clothes was performed. At autopsy, the analysis of putrefaction, environmental climatic conditions, and cadaveric temperature estimated the death to about 120 days prior to the body being found.

At autopsy, entomological elements of *Lucilia sericata* were found externally with eggs, larvae, and adult specimens of flies. The injuries reported, all having characteristics of vitality, were compatible with a fall from a great height (crushing of the thoracic cage, widespread fractures in the cervical and thoracic spine). The injury was compatible with a violent impact on the posterior cervical and thoracic surface. The head, subsequently analyzed with appropriate histological examination, did not show the common signs of vitality of bone stumps. In particular, postmortem linear defects compatible with animal bites were found on the bone. This analysis showed that the beheading was linked to animal scavenging of the body, facilitated by trauma of the cervical spine (loss of skeletal continuity) and putrefactive changes. After clarifying the cause of death through collaboration with investigators, teeth and the genetic profile of the subject were obtained. Subsequently, a compatible subject was identified among a list of missing people in the neighboring areas. In particular, the keys played a crucial role in identifying the subject’s home. The comparative genetic analysis confirmed the identity of the missing person. Due to this case, a standardized method of cataloging personal effects is proposed with the help of at least three operators to identify objects belonging to an unidentified subject on the scene, by obtaining details of garments or objects that can subsequently assume a key role in solving the case.

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**Forensic Sciences, Decapitation, Missing Person**