



E20 A Case of Strangulation With a Cable Tie: Homicide or Suicide?

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Learning Overview: The goal of this presentation is to expose a case of self-strangulation suicide in which plastic cable ties were used, analyzing and drawing attention to features that can be found in a forensic investigation in cases of suicidal and homicidal ligature strangulation.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by showing that, in a case of ligature strangulation, the differentiation between homicide and suicide can be difficult. This presentation can provide important support for the management of similar forensic cases.

Self-strangulation by ligature is an uncommon occurrence in forensic practice. In fact, strangulation cases are primarily homicides, with a few cases of sexual asphyxia or suicide.

A dead body of a 32-year-old male of Moldavian origin was found by the police at 1:40 a.m. along an isolated country road next to a truck. The victim was found in a supine position with a single plastic cable tie around the neck, with the knot (locking head) on the right posterolateral cervical region. Additionally, three cable ties around the ankles were documented. On the right side of the neck, a metal pincer was found, with the cutting edges that clamped a cutaneous fold immediately above the ligature. The subject had no history of psychiatric disorders, but financial problems were reported. Police officers initially suspected homicide.

A medicolegal autopsy was conducted the next day. At external examination, there was marked facial congestion with massive petechial hemorrhage in the face and in the conjunctivae. The ligature-produced furrow was evaluated after the ligature was removed; it was horizontally oriented, pale, deep, and encircled the neck completely. The pattern of the internal surface of the cable tie was reproduced in the furrow. The right cervical region, where the pincer was found, showed two small superficial injuries of the skin, with hemorrhagic infiltrates. No other external injuries were noted on the body.

Internal examination of the neck showed some hemorrhages of the left thyrohyoid muscle, thyroid cartilage, hyoid bone, base of the tongue, palatine tonsil, and to the cervical prevertebral fascia. No fractures to anatomical structures of the neck or elsewhere were found. All organs were congested, with petechiae on serosal surfaces of epicardium and visceral pleura. There were no other significant findings at autopsy. Histopathological examination of the skin on the furrow showed the vitality of the wound. No signs of struggle or other antemortem injuries were found. The ligature at the ankles were loosely bound and were easily released. The death was deemed a suicide by ligature strangulation.

There have been only a few previous reports in the literature regarding self-strangulation suicide in which cable ties were used. More often-described case reports involve the use of belts, ropes, and scarves. Furthermore, this study presents an unusual case of suicide in which plastic cable ties were used both for self-strangulation and for self-restraint of the ankles to prevent any possibility of getting free. However, the neck wounds made with the pincer to undo the ligatures appear unusual because, in similar cases, injuries indicating an attempt to relieve applied pressure are not seen, underscoring the rapid loss of consciousness.

In cases of ligature strangulation, forensic pathologists have to consider all the circumstances (crime scene investigation, historical data, autopsy, and histopathological examination) in order to differentiate between homicide and suicide, especially when the crime scene investigation is ambiguous.

Strangulation, Suicide, Autopsy