

Young Forensic Scientists Forum Posters — **2021**

Y5 An Unusual Attempted Suicide or a Covered Attempted Homicide? A Neck Stabbing Case Report and Review of the Literature

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Learning Overview: After attending this presentation, attendees will better understand what main forensic features are taken into account in order to differentiate a self- from a hetero-inflicted stab wound when only a single person is present.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by emphasizing the role of forensic consultant activity within a clinical setting, especially in those selected cases—such as presence of unusual traumatic wounds—in which a crime report to the Judicial Authority is mandatory.

The distinction between the self- or hetero-infliction nature of stab wounds usually relies on several considerations: the accessibility to the targeted area and the localization of the wounds, being as self-inflicted stabs are localized in sites accessible to the victim's hands (mainly the left chest, reflecting right-handedness, followed by the abdomen and ventral neck), while hetero-inflicted wounds, although most frequently localized on the chest, can be found everywhere on the body, making it sometimes difficult to assume a homicidal act, unless the wounds are localized in clearly inaccessible sites, such as the back. The study of eventual additional wounds and lesions provides further help: the presence of bruises, fractures, or blunt traumas, together with defensive wounds that are randomly oriented and localized on the extensor surface of the hands and forearm or on the back, can offer a homicidal hypothesis; multiple tentative wounds, usually detected close to the lethal one and typically appearing superficial with a parallel orientation and clustering, are indeed indicative of a suicidal stabbing. Further information is provided by the orientation of the stab wound, mostly horizontal if self-inflicted, vertical if hetero-inflicted. As for the state of the victim's clothes, as a general rule those who attempt suicide usually self-stab on exposed skin after removing or pulling up their clothes, thus explaining the absence of any rip; conversely, ripped clothes frequently figure in attempted homicides, with the rips usually overlapping the corresponding stab wounds. Since a strong link is reported between suicide or previous attempts and depressive disorder, the latter occasionally identified by old, linear scars, mainly located on the flexor surface of the wrists, the psychiatric/psychological background of the victim should also be investigated.

All these considerations had been taken into account when a forensic consult was requested following access to the emergency unit of a 52-year-old man with a single stab wound of the neck, who reported self-stabbing in a suicidal attempt. The man was fully conscious, and the vital signs were in range. The wound was penetrative although not lethal, since no vital structure had been involved, and the knife was still onsite, with entry from the right side of the neck and exit from the left side; the blade was obliquely inclined from bottom to top and from front to back. The inclination of the blade was better studied with the aid of a 3D Computed Tomography (CT) reconstruction, showing an inclination from front to back and from bottom to top. Since no other wounds or lesions were present, the clothes weren't available at the time of the consult, and the patient had no history of psychiatric/psychological problems, the stab wound was investigated by a thorough study of its localization, orientation, and inclination of the blade, the possibility of producing a stab wound with the cited characteristics in relation to the range of motion of the wrist and the strength necessary to pass through the neck structures from one side to the other was evaluated.

Based on these considerations, the forensic consultants rejected the self-infliction version provided and agreed on a hetero-inflicted stabbing. According to the Italian Code of Criminal Procedure, both clinicians and forensic consultants submitted a crime report to the Judicial Authority; a criminal prosecution was thus opened, which further confirmed the hetero-infliction nature of the stab wound.

Stab Wound, Attempted Suicide, Forensic Investigations