



F39 Bite Mark Aids in the Identification of a Murder Suspect

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The presentation will demonstrate the use of preliminary bite mark analysis to assist law enforcement in the apprehension of a murder suspect.

Bite mark analysis requires careful and precise examination and scrutiny before opinions regarding the bite mark can be presented in a court of law. However, in some cases, there may be an opportunity for general observations to be made of the bite mark that can be of significant value to law enforcement officers in identifying and apprehending possible suspects. This is a report of such a case.

The presentation will show how preliminary, onsite observations of a bite mark were instrumental in assisting law enforcement agents identify and apprehend the assailants of a 20-year-old Caucasian female. The victim, who had been sexually assaulted and murdered, was found with a human bite mark on the antero-medial aspect of her left thigh. Law enforcement personnel, recognizing the pattern bruise as a possible bite mark, provided a set of dental stone casts of two possible suspects. The authorities had one suspect in custody. They had questioned the other suspect, a good friend of the first suspect, but had released him when they could not find significant evidence to hold him.

It will be shown how the bite mark was identified, analyzed and prepared and how the general characteristics of the mark, including arch width, arch shape, intercuspid distance, and occlusal markings of the bite mark were preliminarily evaluated at the time of the autopsy. Of particular importance was what appeared to be a missing or mal-aligned maxillary lateral incisor. These same characteristics were then compared to the general characteristics of the casts obtained from the two suspects that had been provided by law enforcement officers.

It was found that the characteristics of the bite mark were consistent with one of the suspects, including, but not limited to, a missing lateral incisor, and that they were not at all consistent with the other suspect. Of particular interest to the officers was that the bite mark on the victim was consistent with the cast of the suspect that had been released. Based on these preliminary observations and matching of the general characteristics between the bite mark and the cast, it was ordered that the second suspect again be taken into custody for further questioning. He was subsequently found guilty of first-degree murder and first-degree sexual assault. The initial primary suspect was found to be an accomplice and plead guilty to second-degree murder and second-degree sexual assault.

Successful utilization of the bite mark in this case was a result of two important factors. First was the recognition by law enforcement officers that the pattern bruise was a human bite mark resulting in having dental casts of the suspects' dentition available for immediate analysis. Second was the quality of the bite mark itself, which allowed for general measurements and evaluation at the time of the autopsy. Although it would require significantly more precise and careful examination to present the bite mark in a court of law, the preliminary observations in this case were beneficial in helping identify a suspect.

Bite Mark, Preliminary, Analysis