



F1 Evaluation of Bitemark Cases Between 2003-2013 in Turkey

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After attending this presentation, attendees will be able to utilize data presented to evaluate prevalence of bitemarks and the corresponding criminal activities in autopsies performed in Turkey.

This presentation will impact the forensic science community by showing the importance of bitemarks in forensic evaluation and in criminal investigations.

Forensic odontology takes advantage of people's unique features of jaws and teeth to determine their identities. Bitemarks, especially in the absence of witnesses in cases of sexual assault or homicide, are as important evidence of crime as are fingerprints, blood stains, and semen samples. Presence of blood and other body fluids of an attacker in a crime scene is very important. Using bitemarks to identify the presence of a second person (or persons) can be valuable evidence for defense or the prosecution team. The development of forensic odontology studies did not start until 1993 when widespread use of bitemark analysis by forensic medicine institute studies was initiated. This provided for the introduction of forensic odontology as an educational option; however, as of today, there is not a sufficient enough number of forensic odontologists in Turkey. One major reason for this shortage of expert forensic odontologists is the lack of a centralized legal forensic expert structure.

Bitemarks have been used to solve criminal cases in developed countries for a long time. Use of bitemarks as evidence is a recent phenomenon in Turkey. Evaluation of bitemarks using the newest techniques and scientific studies has contributed to the solution of criminal incidents in the world.

The Department of Forensic Odontology of Turkey's council of Forensic Medicine (ATK) is the responsible entity to identify and study bitemarks. This study evaluated 22 bitemark cases within the past 10 years in Turkey by discussing their shortcomings and comparing these result to those obtained using new techniques. There were 13 homicide cases, eight injury cases, and one bitemark case handled by the Turkish court system between years of 2003 and 2013. Four out of a total of 22 studied cases were child abuse cases, eight cases of rape, one homosexual relationship case, and the remaining were for a variety of crimes. Even though photographic analysis of bitemarks are very important in every criminal case, forensic odontologists are not present at all bitemark crime scenes. Most of the time, crime investigation teams in municipalities do not collect forensic evidence according to acceptable standards. Therefore, evidence collected at the crime scene by the investigators and especially photographs taken by this team create difficulties for forensic odontologists. One major problem with these photographs is the angle used while taking photos which create difficulty in using these pictures for measurement and scale for analysis. The difficulties encountered in the analysis of bitemark in these cases are featured in this study.

Forensic Odontology, Bitemarks, Identification