



### F14 A Brief History of Forensic Odontology in Turkey

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After attending this presentation, attendees will learn about the development of forensic odontology in Turkey. This presentation will impact the forensic science community by describing different odontological cases in Turkey.

Though being a very important discipline of forensic sciences, the scientific use of forensic odontology as a forensic field in Turkey is new, starting in 1994. The first case was a homicide case with a bitemark and the bitemark was successfully identified; this finding was accepted as evidence by the court. After this, papers on the application of dentistry in forensic cases emerged and increased in Turkish forensic journals. This presentation attempts to summarize the history of forensic dentistry which gained its important role in forensic cases very late in Turkey with sample applications carried out in the Council of Forensic Medicine of Turkey.

Samples of forensic odontology cases in Turkey in a chronological manner:

**1993 – A Skeletonized Human Corpse Found in Antalya:** A skeletonized corpse was found in the hilly region of Antalya together with his bags. There was information of a missing German tourist who was interested in mountain climbing. Skeletal remains of the case and personal belongings were sent to the Council of Forensic Medicine for identification. The skeletal remains were examined by a forensic pathologist and forensic odontologist and comparison of dental restorations with antemortem dental records resulting in positive identification of the case.

**1994 – Bitemark Analysis in Elmali, Antalya:** In a homicide case, the photograph of a bitemark on the left humeral region of the victim and a dental cast of the suspect were sent to the Council of Forensic Medicine for comparison. After examination, it was reported that dental characteristics of the bitemark and the dental cast of the suspect were the same.

**2003 – A Serial Killer in Istanbul:** A serial killer created terror in Istanbul and drew the attention of both the public and press. The victims of the killer were older woman living alone. With the first victim, there were many bitemarks on the arms, face, and buttocks. The next victim was killed by stab wounds. There were bitemarks on this woman as well. One and a half months later, he assaulted an elderly American woman living alone in the same region. After careful examination of bitemarks and comparisons with the dental casts of the suspects, the serial attacker was successfully identified.

**2003 – Success in International Works:** As a part of the ABFO workshop in Chicago of 2003, photographs of the bitemarks and dental casts of three suspects were sent to eighteen experts for comparison. Using five methods, comparisons were performed, results presented, and the cases were successfully identified.

**2003 – Mass Disasters in Diyarbakir:** A Turkish RJ 100-type aircraft crashed at the military airport that is also used for civilian flights. Only five persons out of 85 survived. The remaining 72 adults, three babies, and five flight personnel were dead. Despite the presence of the burns (almost to the degree of charring), identification of 55 victims was possible. The identification of five of the remaining 20 victims was carried out by the DVI team from the Council of Forensic Medicine in Istanbul by comparing antemortem and postmortem dental records and photographs.

**Historical Cases:** Historical skeletal remains were found in Maiden's Castle during an archaeological dig. Kiz Kalesi (Maiden's Castle) is located on a small island approximately 60km from the Mediterranean city of Mersin. It was reportedly built in the 12<sup>th</sup>-century AD. During its restoration, archaeologists unexpectedly discovered human remains. After excavation, these remains were sent to the State Institute of Forensic Medicine in Istanbul for dental and cranial examination. V-shaped dental mutilation and craniofacial mutilation were identified in two of the skeletons. These cultural custom V-shaped dental mutilations matched Romero Dental classification A1.

**Odontology, History, Identification**