



G37 Not Your Typical Forensic Odontology Cases

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Learning Overview: After attending this presentation, attendees have information on various applications or skills of forensic odontology in relation to forensic sciences of which they have been unaware. These skills include evidence retrieval from the oral cavity, radiographic scanning of edentulous areas, and education of the public in the dental care of elderly citizens.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by reminding attendees of how forensic odontology may be helpful beyond the traditional roles of restoration comparison in identification work, age estimation, and bitemark analysis. Three casework subject scenarios will be presented.

Regarding the first example, oral examinations conducted during identification work of victims was able to assist pathologists in determining the series of events that may have occurred in two possible homicide cases. Skin found between the teeth did not belong to the deceased in either case and was able to be linked to other suspects. Any material discovered within the oral cavity during a dental identification examination, especially biological material such as hair and skin, could be critical in investigations and need to be photographed *in situ*, recorded for chain of custody reasons, and, following approval from the attending pathologist or medical examiner, removed carefully for matching and/or further testing.

The second scenario suggests that edentulous alveolar arches should always be examined with full radiographic assessment. In a large disaster incident, full dental examination is routine. However, in a single victim case, a triage forensic officer or medical examiner may deem that odontologists may be of no benefit in the identification of an individual due to the edentulous state of the victim, and this process may be overlooked. Often, residual root tips or restorative material could be still present in an individual, which will be evident with dental radiological examination. This information may not be sufficient to confirm the identity of a person and could add further weight to the evidence already present. A casework illustrating this point will be presented.

The third scenario presents a tragic series of events in which a patient died due to denture asphyxiation. In this case, the elderly patient was severely medically compromised, and precautions, obvious to dentists, were not taken. Even though forensic odontology was not involved directly, it highlights the obligation the profession has to educate care workers and law makers regarding dental care and possible legislation.

Odontologists can contribute to the community in many ways, and it is important to keep an open mind for the unexpected ways in which they may assist.

Odontology, Unusual Cases, Investigations