



F52 Dental Identification Based on Photographic Comparison: A Case of Homicide Concealed as an Auto Accident

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The goal of this presentation is to provide the attendee with a case example in which the postmortem dental identification of a badly burnt body was based on comparison of an antemortem photograph.

This presentation will impact the forensic community by presenting information on the technique of utilizing unique dental characteristics and anomalies of the anterior dentition which may be useful in establishing positive identification of the deceased when radiographic records may not be available.

Use of distinguishing individual dental morphology such as shape, size, contours, and chipping injuries can be utilized for identification purposes through detailed comparison to dental characteristics depicted in a recent photograph of the deceased in question. The usefulness of this technique depends on the uniqueness of the dental feature/s being compared, and the clarity/resolution of the photograph of comparison. How modern digital photography and computer enhancement will be demonstrated so that the attendee will be able to incorporate this technique in their forensic practice.

The case to be presented involves the murder of a 19-year-old Caucasoid female whose badly burnt remains were recovered from a burning vehicle. In early July 1986, the Quachita Parish, Louisiana Sheriff's Department responded to a vehicular fire along a local interstate road. Examination of the scene by the Sheriff's Deputies and the local coroner concluded that the vehicle involved apparently had run off the road striking a tree, a fire ensued thus resulting in the death of the driver. The remains of the deceased were transported to the Bossier Parish Coroner's Office for examination as a vehicular accident victim.

On the same day the Bossier Parrish Coroner's Office received another body, that of a young adult male whose body had been discovered in a parish adjacent to Quachita Parrish. The deceased male was determined to be a homicide victim who died as the result of a large knife wound to the neck. According to the sheriff's report the remains recovered from the burnt vehicle were likely that of an elderly male in whose name the vehicle was registered. Forensic anthropological examination of the remains found them to primarily consist of a badly burnt torso in which the internal organs were exposed and heavily charred. The skull was noted to be in a burnt and fragmented state. Much of the remaining top half of the skull, which was recovered as burnt cranial fragments from the body bag, were reconstructed on top of the inferior half which remained partially articulated to the cervical spine. Additional anthropological examination revealed the remains not be those of an elderly male but those of a young adult Caucasoid female. The identification of the remains as a young female was unexpected in lieu of the sheriff's investigational reports.

Detailed reconstruction and examination of the upper cranium revealed the presence of a small defect located along the left side of the frontal bone. The defect was identified as an entrance gunshot wound to the head. Radiographic examination of the reconstructed skull, and adhering brain remnants provided evidence of bullet remnants which were collected as evidence. Investigational reports received later in time from the scene of the car fire, noted that the degree of impact exhibited by the car did not appear sufficient to produce the death of the deceased much less result in the vehicle fire. As investigational clues began to develop during the day it was determined that the victim from the car fire was possibly that of a young female who was reported missing along with her married boyfriend. The actual owner of the burnt vehicle was located and he informed the authorities he had loaned the car to the boyfriend of the young female in question. At this point identification of the young male with the slit throat was confirmed by the coroner's office as the friend who had borrowed the car.

Identification of the badly burnt torso became crucial and solving a final piece of the forensic mystery. Initially, dental records could not be located of the young woman in question, and therefore a request was made for a recent photograph. A joint examination by the consulting odontologist and anthropologist found the remaining dentition to be consistent with a dental age of approximately 18 to 21 years of age. No restorations were noted on the dentition; however, the remains of the maxilla revealed a chip on the labial surface along the inferior medial edge of the right lateral incisor which was discolored. Comparison of the configuration of the remaining maxillary dentition found a matching discolored chip on the corresponding tooth in the photograph. Based on the anthropological and odontological findings the deceased was positively identified. Additional confirmation of the identification was made later after a radiographic record was recovered and utilized for comparison by the odontologist.

Establishing the identity of the young woman lead the law enforcement authorities to theorize that the two young individuals who had planned to travel to a local motel for an intimate date had possibly encountered a hitch hiker or other individual at one of the many truck stops along the section of interstate. The individual or individuals they encountered apparently took control of the vehicle, driving to one parish and killing the young male and dumping his body along side of the road. The vehicle was then driven to the adjoining parish where the vehicle was driven off the road where the young woman was shot in the head, and



Odontology Section – 2010

the car set on fire in an attempt to disguise the crime. As of this presentation the two murders have yet to be solved.

Identification, Odontology, Photographic Comparison