



F57 Dental Identification of a Burned Homicide Victim

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After attending this presentation, attendees will be able to list steps taken to recover charred human remains in a careful and thorough manner, and determine the effectiveness of dental identification after attempted criminal concealment by burning, pulverizing, and scattering of remains.

This presentation will impact the forensic science community by showing how, in spite of the best efforts by criminals, thorough and careful search for charred human remains can recover enough dental evidence for identification following complete flagration, pulverizing, and scattering of evidence.

A 73-year-old retired reclusive millionaire living in a modest subdivision in northern Kentucky was kidnapped, bound, forced to sign over power of attorney and drugged. His body was driven 100 miles away to a remote field near Indianapolis and burned in a fire fueled by automobile tires, then raked and scattered and then transported to another site. Among the debris at the first site, an anthropologist collected then dry sifted the remains. Only one intact lower right first molar with an occlusal amalgam was recovered along with multiple charred roots and jaw fragments. These were individually bagged and tentatively labeled according to likely tooth numbers. Antemortem periapical radiographs of the putative victim were compared to the intact tooth. The radiographic silhouette pattern of the amalgam was similar in both films as was the anatomy of fused roots. The forensic odontologist requested another search of the scene and a wet sift of remaining fragments. Additional roots and jaw fragments were recovered including a critical specimen. Lastly, a fine sifting of the crumbled material in a single bag holding a molar fragment revealed another surprise. After the final collection of root and jaw fragments, most teeth could be correctly assembled and labeled and compared to antemortem films. The combination of specific concordant features permitted a positive identification in what was initially considered a seemingly hopeless case in which homicide and person identification was intended to be well concealed.

Dental Identification, Burning, Homicide