



F47 A Dental Identification Without Teeth

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After attending this presentation, attendees will learn how teeth are not always necessary to make a dental identification.

This presentation will impact the forensic science community by demonstrating how a dental identification can be made with the use of analysis of restorations.

A man and woman met in Toronto in the year 2000. After some time together, they relocated to a south eastern suburb of Cleveland, Ohio called Maple Heights. Prior to becoming involved with each other, the man had a list of charges including: domestic violence, drug use and possession, drug trafficking, and armed robbery.

On a day in 2001, a tenant who was living below the couple noticed a liquid dripping from their balcony to his. Upon reporting this to the landlord, and when the above apartment was notified, there was no answer. When the landlord entered the apartment, there was nobody present. While searching the balcony, a large plastic trash barrel was found with a soupy liquid and what looked to be a blanket or comforter of some type contained inside.

It had immediately become apparent that something was awry and the police were called. Upon inspection it was found that the contents of the barrel was some type of liquid mixed with what was most likely a human body. When retrieved, a body was in fact what was found. However, one arm, one leg, and the head had been severed off. These body parts were found in the barrel as well. After further analysis, it was noted that the liquid was an acid of some type; a form of hydro-fluoric acid.

At the time and even now, it is not exactly known how long the body was in the vat. The body was identified to be that of a woman. An interesting note to take into account is that the body and bones were somewhat "rubbery." The skin and hair remained intact, but the teeth were missing, causing one to believe that the victim was edentulous.

X-ray analysis using film showed what appeared to be six fragments most probably from a fragmented bullet in the skull. These were noticed on a lateral skull X-ray film. Once the fragments were retrieved, they were found to actually be six separate dental restorations. The acid had dissolved the teeth but had not harmed the amalgam restorations or the composites, of which there were three of each.

The suspected victim's family was notified and the victim's dentist in Toronto was located.

Though unsure of exactly which teeth the restorations belonged to, it seemed evident that the three amalgams were all from maxillary teeth, two from molars and one from a pre-molar. This was deduced from the shape and size of the restorations. The three composites seemed to be of the shape and size that would be found in mandibular molars. When the dental chart was forwarded to the Cuyahoga County Coroner's office (some of which was in French), it was discovered that the numbering system used had to be converted to our commonly used international system. Further, it was found that the suspected victim did in fact have six charted restorations, three amalgams and three composites. And lastly, the three maxillary amalgams were of two molars and one pre-molar, while the three mandibular composites were all from mandibular molars. Viewing of the restorations from the side indicated all six to match with the shaped of the bite-wing films also forwarded.

With DNA, fingerprinting, and visual identification not possible, this dental restoration identification indicated with a high degree of probability who the victim was.

As a conclusion to the story, the suspect was apprehended shortly after in the western United States with a receipt found in his glove compartment for—driveway cleaning acid.

Dental Identification, Identification, Restoration Analysis