



Odontology Section - 2016

G27 The Anatomy of an Aborted Retrial Involving Bitemark Evidence

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After attending this presentation, attendees will better understand the dated and improper use of photography, methods, materials, and techniques in an infanticide case.

This presentation will impact the forensic science community by demonstrating the effects of writing a proper, complete, detailed, expert witness report and by using approved guidelines as an essential component of judicial proceedings.^{1,2}

In 2006, the body of a 3-year-old girl arrived unclothed at autopsy and no clothes accompanied the body. The child suffered a fractured skull, a healing fracture of the pelvis and wrist, liver laceration, broken ribs, spinal injuries, multiple bruises, abrasions, and lacerations, and more than 13 suspected human bitemarks, some of which were healing. The bitemarks were found on various parts of her anatomy, including the forearms, arms, finger, abdomen, mons pubis, buttocks, thighs, legs, and foot. The cause of death was established as multiple blunt force injuries with non-accidental trauma.

A pathologist and dentist were present at autopsy, and the prosecution hired two additional board-certified forensic dentists to review the case at a later stage. A male defendant was sent to trial in the case on charges of first-degree murder, aggravated sexual assault, and sexual interference principally based on the bitemark evidence. The case went to preliminary inquiry in 2010 and to trial in 2012. The initial board-certified forensic dentist testified for the prosecution at both events. The trial court judge acquitted the accused, and the Court of Appeal ordered a new trial on the basis of judicial error. There was no dental expert witness for the defense at the preliminary inquiry or at the trial. For both the preliminary inquiry and the trial, the case was considered a “closed population” event; however, for the retrial, further investigation discovered that more persons had been in contact with the child than had originally been thought, and thus it became an “open population” case. A forensic dental expert witness for the defense was appointed for the scheduled retrial in 2014.

The burden of proof in the jurisdiction in question belongs to the prosecution. This presentation will focus principally on the forensic elements and particularly the bitemark evidence leading up to this eight-year judicial marathon. The elements leading up to the retrial will be discussed. These elements include known and accepted facts that placed the accused in another place at the time of the child’s death, pre-digital photographic conversion problems, the improper autopsy bitemark protocol, the improper use of dental materials and methods in evaluating the bitemarks, bitemark orientation issues, dental line-up issues, the improper use of dental casts for comparisons, the contradictory forensic bitemark prosecution expertise, and the DNA results.

In conclusion, the prosecution withdrew all charges against the accused the week before retrial. This case illustrates that a detailed defense expert witness report can at times halt judicial proceedings and prevent a potential wrongful conviction.

Reference(s):

1. Dorion R.B.J., ed., *Bitemark Evidence: A Color Atlas and Text*, 2nd edition. CRC Press, Boca Raton, FL, 2011.
2. *American Board of Forensic Odontology Diplomates’ Reference Manual*, January 2015 edition. American Board of Forensic Odontology, Inc.

Forensic Odontology, Evidence, Bitemark