

JOURNAL of FORENSIC ODONTO- STOMATOLOGY

VOLUME 31 Supplement 1 October 2013
Abstract book IOFOS Conference 2013 Firenze

CURRENT TRENDS IN BITEMARK EVIDENCE/ANALYSIS/COMPARISON: RESEARCH PERSPECTIVES

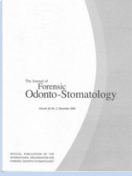
FranklinD.Wright

Forensic Dental Consultant, Hamilton Co. Coroner's Office, Cincinnati, Ohio, USA - Diplomate, American Board of Forensic Odontology - Fellow, American Academy of Forensic Sciences, Odontology Section - Member, American Society of Forensic Odontology - Member, Emeritus, Ohio Dental Association Forensic Dental Team - Member, Northern Kentucky-Greater Cincinnati International Airport Disaster Committee - Member, Montgomery County Coroner's Office Dental Disaster-First Responder Team

The authors declare that they have no conflict of interest.

Bitemark evidence can be used in criminal proceedings to analyze and compare suspected populations of biters with bitemarks seen in criminal events. Recent research publications regarding bitemark evidence have centered on two main areas: bitemark patterns in skin and the uniqueness of the human dentition. Has this research contributed to a better understanding of bitemark evidence, analysis and comparison in actual cases? Research publications attempting to study the bitemarks seen in the actual cases have centered on a cadaver or porcine skin model to artificially create tooth patterns in these skin substrates as an attempt to better understand the bitemark patterns seen in living skin in real cases. Scientific study necessarily requires that an investigator recreate the event seen in nature (bitemarks seen in living skin in acts of violent crime) and replicate that same event in a controlled environment to study and better understand the event seen in nature. This presentation will review the premises and methodologies for these artificially inflicted tooth pattern studies that have substituted cadaver and porcine skin for living human skin to see if this research satisfies the requirement for scientific study of bitemarks in living human skin. Additional research has been published attempting to determine if the human dentition is unique to an individual. Methodologies in these studies have centered on Procrustes Analysis of data points placed on digital images of models of human dentitions. Similar studies by different investigators have been published with diametrically opposite findings, one research group finding the human dentition to be unique and another research group finding dentitions so similar as to be indistinguishable. This presentation will review the premises and methodologies of these studies to attempt to determine how similar studies have such different findings.

KEYWORDS: Forensic Odontology, Bitemark, Current trends



JFOS. October 2013, Vol.31, Sup.No.1 Pag 123-124
ISSN :2219-6749