



JOURNAL of FORENSIC ODONTO- STOMATOLOGY

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

CURRENT STATUS OF BITEMARK ANALYSIS IN THE UNITED STATES: LEGAL PERSPECTIVES

Thomas J David

*Georgia Bureau of Investigation, Division of Forensic Sciences, State of Georgia Medical Examiners Office, Decatur, Georgia, USA.
Diplomate, American Board of Forensic Odontology - Emory University, Atlanta, Georgia, D.D.S. - Armed Forces Institute of Pathology,
Walter Reed Army Medical Center, Washington, D.C., Training in Forensic Dentistry - Atlanta Oral and Facial Surgery, Marietta, GA -
Medical Examiner Consultant, State of Georgia - Team Leader, Georgia Dental Association, Forensic Dental Identification Team - Forensic
Consultant in Odontology, Georgia Bureau of Investigation - Forensic Odontologist, US Department of Health and Human Services,
Disaster Mortuary Operational Response Team (DMORT) – Region IV, Washington, D.C. – Member of the Editorial Board, Journal of
Forensic Sciences – Author of many publications and presentations.*

The authors declare that they have no conflict of interest.

For the past 13 years, there has been a drumbeat of DNA exonerations involving bite mark evidence in the United States (US). Almost all of these exoneration cases were spearheaded by the Innocence Project. The Innocence Project was founded in 1992 by Barry C. Scheck and Peter J. Neufeld at the Benjamin Cardozo School of Law at Yeshiva University in New York to assist prisoners who could be proven innocent through DNA testing. To date, more than 300 people in the United States have been exonerated by DNA. Despite the fact that forensic odontologists played a crucial role in these wrongful convictions, forensic odontology also played a crucial role in challenging the bite mark evidence both before and after the appellate process. From 2000 until 2010, there have been approximately 10 DNA exoneration cases involving bite mark evidence in the US. In at least half of these cases, American Board of Forensic Odontology (ABFO) Diplomates were involved in challenging this evidence. In a few cases, ABFO Diplomates testified in the original trials and in others, they were involved in post-conviction review of the bite mark evidence. Because of these DNA exonerations, the United States Congress passed an appropriations bill in 2006, which authorized the US Attorney General to provide funds to the National Academy of Sciences (NAS) to create an independent committee to examine the following: 1) assess the present and future needs of the forensic science community; 2) disseminate best practices and guidelines on forensic sciences; 3) make recommendations for maximizing the use of forensic techniques; 4) make recommendations for increasing the number of qualified forensic scientists and medical examiners. In 2009, the National Academy of Sciences issued a report entitled “Strengthening Forensic Science in the United States: A Path Forward”. In this report the NAS outlined their findings, including a critique of bite mark analysis in the US. Since this report was issued in 2009, there have been numerous challenges in the US to the admission of bite mark evidence in criminal trials, including a post-conviction challenge in Federal Court in Texas in 2011. This challenge resulted in the Court upholding the admissibility of bite mark evidence on appeal. These challenges come despite the long history of admission of

bitemark evidence in US Courts. Bitemark evidence was first introduced in court in the US in 1954. Since that time, the admissibility of this evidence has never been rejected by any US court. Nevertheless, because of the NAS report and numerous DNA exonerations involving bitemark evidence, there are currently 2 challenges to this admissibility. One of these cases has been decided and the other is awaiting a ruling by the court. If we examine the bitemark cases that resulted in DNA exonerations, there is a common theme that runs through all of them. In every case, the forensic odontologist rendered an opinion that was not supported by the evidence. In most cases, the linkage opinion went beyond what the evidence supported. In a smaller number of cases, the bitemark analysis itself was flawed. If bitemark evidence is going to withstand these legal challenges, careful case selection is essential. It is my opinion that bitemark evidence does have value if properly utilized. Proper utilization involves selecting cases that have sufficient evidentiary value. In short, bitemark evidence is most valuable when 3 conditions exist: 1) the bitemark has significant evidentiary value for analysis; 2) the potential biters have distinctly different dentitions; 3) the population of potential biters is limited (closed).

KEYWORDS: Forensic odontology, Bitemark, Legal perspectives.