



F3 Bitemark Analysis in Brazil: Four Case Reports

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After attending this presentation, attendees will understand and appreciate how bitemarks can contribute to child abuses investigation and violence cases.

This presentation will impact the forensic science community by serving as a reference for those dental practitioners and other experts who may be requested to provide a testimony before the court that bitemarks can be the main crime evidence.

Bitemarks are circular or ovoid areas of abrasion or contusion, occasionally with associated indentations. It may be composed of two U-shaped arches that are separated at their bases by an open space. Newer techniques that have enhanced bitemark identification include application of electron microscopy and computer enhancement techniques.

Bitemarks may be found at the scene of a crime and their analysis has been used for many years as an aid in forensic investigation. Bitemarks can occur on the skin of a victim or on other objects, including foods.

In Brazil, some investigative cases involving bitemarks on skin and bitten foodstuffs: apple, cheese, and chocolate bar, associated with crime scenes, were used as important evidence factors which resulted in convictions. Given this information, along with other relevant evidence, the judge or jury is likely to find that the perpetrator of the bite also committed the rape, murder, or other criminal act.

The goal of this presentation is to report four bitemarks cases in Brazil.

Case 1: A seven month-old Brazilian female infant was admitted to the Medical Center Pediatric Intensive Care Unit with multiple injuries. A pattern of suspected abuse was established and Child Protective Services was notified. After clinical examination, numerous ovoid and circular pattern injuries were observed by the physician who recognized them as human bitemarks. She immediately notified the forensic odontology department to request a forensic bitemark examination and photographic documentation of the injuries. Among five suspects, the mother was determined to be the individual responsible for the injury and during the trial, she confessed the crime.

Case 2: The “Maniac in the Park” was a famous serial killer case in Brazil. Young female bodies were found on a forest reserve on the out-skirts of São Paulo. The suspect in the case was a 31-year-old motorcycle courier who confessed to raping and killing nine women. The bitemarks on the victim contributed to his conviction.

Case 3: A domestic assault where the victim was a female. A bitemark on the chest was the main evidence that linked the unique suspect with murder.

Case 4: During a fight between two women, the aggressor bit the ears of the victim. In one, there was partial removal of the ear. The suspect denied having caused the bites, but after the assessment of the bitemarks, was charged with injury.

The Brazilian experience showed that early recognition of bitemark evidence can play an important role in criminal investigation. Bitemarks cases have increasingly occurred in Brazilian territory and several cases have been successfully solved. Some scientific research has been undertaken using simulated bitemarks in foods and pig skin. Bitemark evidence has been increasingly accepted by trial courts in Brazil. **Forensic Odontology, Bitemark, Skin**