

Odontology Section – 2004

F39 Who Was the Perpetrator?

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After attending this presentation, attendees will understand how the integration of different forensic specialties, including odontology, has allowed collection of a number of findings of interest to justice in the forensic investigation of a case with no credible witnesses.

This presentation will impact the forensic community and/or humanity by demonstrating the importance of multidisciplinary work in a specific case, but also the possibilities and limitations of the current investigation methods that provide answers to the questions raised, while leaving other issues unresolved.

On a winter evening of 2002, in a small snow-covered mountain village, a 7-year-old boy leaves his home in the company of his 4-yearold brother and their dog, a 6-month-old German shepherd. Approximately one hour later, the mother of the two children returns home and notices their absence and the absence of the dog. She leaves the house to search for her children in the night and eventually finds the jacket of her elder son in the snow. She whistles, the dog appears before her and she hears her younger son crying. The dog leads the woman down a meadow where first, other pieces of clothing are found, and then, the boy himself, - lying half-naked in the snow. The mother takes the unconscious child in her arms and carries him to the closest house where different individuals, including a medical doctor called in an emergency, attempt to resuscitate the child who is suffering from cardiorespiratory arrest with bilateral fixed mydriasis. The child also presents with multiple superficial skin lesions on the face, the thorax, and the limbs. The victim is driven to a hospital where resuscitation is continued, but with limited success. The child is later flown by helicopter to the nearest hospital where warming measures are applied.

The initial forensic investigations include the examination of multiple dermabrasions associated with hematomas. Toxicological analysis only reveals substances administered during the medical treatment. A search for sperm yields negative results. DNA analysis reveals the possible presence of canine genomic DNA but formal identification is not possible.

The police investigate the scene the same evening and uncover several pieces of partially torn clothing belonging to the boy.

Other specialists participate in the investigation: a child psychologist, a pedopsychiatrist, a veterinary behaviourist, and a hypothermia specialist.

The family of the child insists on the participation of one or more external party experts in the investigation. The case is transmitted to a second judge who orders new investigations in the beginning of 2003 that would answer his own questions about the case. This action calls for the intervention of a new team of forensic specialists, including an odontologist, to study the available evidence to determine the nature and origin of the lesions found on the body of the child.

The integrated analysis of the conclusions of each expert is presented. It illustrates not only the importance of multidisciplinary work, but also the possibilities and limitations of the current investigation methods that provide answers to the questions raised, while leaving other issues unresolved.

Odontology, Bite Marks, Multidisciplinary Approach