



Odontology Section – 2005

F16 Dispersed Anatomical Parts Meet Various Forensic Disciplines

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After attending this presentation, attendees will understand the importance of integrating various forensic disciplines in a criminal investigation.

This presentation will impact the forensic community and/or humanity by demonstrating the relevance of a teamwork approach of various forensic disciplines in an unusual criminal investigation.

The purpose of this presentation is to demonstrate, using a specific case that occurred in Switzerland as an illustration. The importance of a multidisciplinary forensic approach to identify human body fragments dispersed over a wide territory (200 km), and to subsequently reveal the circumstances of death and the identity of the perpetrator or perpetrators.

On the morning of March 18, 2002, a forester notices a fire burning approximately 20 meters from a road, at an altitude of 1342 meters, near a village in the canton of Bern, Switzerland. A closer look reveals that a human corpse is being consumed. A rapid examination of the anatomical piece shows that the corpse has been decapitated. It is not possible to conclude whether the limbs had been burnt or removed: the traces of charring reach mid-thigh level and only some rests of the femurs remain.

On the evening of March 20, 2002, a man and his son are strolling along a river in the canton of Geneva, at an altitude of 410 meters. Suddenly, the man sees plastic bags and pieces of clothing resting on a sand bank, held by a fallen tree trunk. Upon closer inspection, the man discovers a human leg and a human foot, partially covered by sand. These remnants turn out to be two legs, one right and one left, obviously cut off from a corpse at knee level. A kneecap is still attached to one of the legs. The clothing includes a sweater, a pair of pants, and a sort of towel. The body parts and the clothing were double-bagged and six cuts, probably made with a knife, were apparent in the plastic. The bags show tearings typical of predators. The place where these remnants were discovered is at a distance of 90 km from the first site.

In April 2004, a couple is mushroom hunting on the shore of the lake of Neuchâtel, in the canton of Vaud, at an altitude of 435 meters. They discover a perfectly clean human skull, devoid of any soft tissue. An on-site search by the police reveals a unique mandible, lying close to the skull.

A multidisciplinary forensic approach integrating entomology, odontology, anthropology, and genetics resulted in a focused investigation leading to the conclusion that the dispersed human remains belonged to the same person. A precise postmortem interval (+/- 24 hours) was also determined.

The investigation conducted by the criminal police led to the identification of the cadaver. The investigation to identify the perpetrator or the perpetrators and the circumstances of this homicide are currently under way.

Odontology, Entomology, Genetics