



### **G96 Asphyxia by Confinement: The Death of a Man Kidnapped and Segregated in a Small Underground Cistern**

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The goal of this presentation is to illustrate a particular case of homicide of a 68-year-old Caucasian man who was found dead inside an underground cistern, tied with ropes and chains.

This presentation will impact the forensic community by presenting the unpredictability of death by asphyxiation from confinement of a man unlawfully restrained for the purpose of extortion.

The air of confined environments can be subject to alteration by shares of various causes. Those persons who stay indoors need to have available a sufficient volume of air appropriately refreshed.

The sensitivity of the subject varies in relation with the temperature of moving air (compared to room temperature), the direction of air current, and conditions of the subject.

In February 2007 a male corpse of the apparent age of 65-70 years was found inside a cistern built underground, three meters deep, and used to conduct the passage of water (size of 3x3x3 meters, closed tightly with a metal lid of 63x63 cm).

The analysis of clothing made it possible to identify the victim; it was a Caucasian 68-year-old man who had disappeared a month before the discovery.

From data carried out during inspection, the victim was lying on the ground and immobilized by the presence of several girdles consisting of a rope and a chain.

The rope, surrounding the sides, kept him in contact with water and blocked any possibility of his movements. The chain consisted of steel mesh fixed at both of wrists and left ankle, as follows: the right wrist was linked to the left ankle at a distance of ten mesh chain links. This position forced the bending of the left knee over 90° and the extension of the right arm, not allowing any movement of the arm or the leg.

The left wrist was also linked to the left ankle by a chain at a distance of 22 cm, allowing the bending of forearm and arm; this chain also passed below the rope tied to waist passing on the left side.

The external examination of the corpse showed chromatic- emphysematous state of putrefaction; negroid face, with disjunction of hair in large areas of the scalp, eyeballs completely concave for colligation and evaporation, easy detaching of skin grafts; massive destruction of nasal cartilage and perioral soft tissues, with exposure of dental arches and jawbone.

There were also larvae in various stages of maturation (pupae of 1 and 2 stage) and skin erosions caused by their destructive action. Several skin areas were affected by the presence of fungal growth on the right side, in particular: the neck, the chin, the right auricle, the upper right region of chest, the stump of right shoulder, and the periumbilical region.

Some skin areas were blackish and partially wrinkled (head, neck, upper region of chest, and upper limbs), while others were affected by phenomena of maceration with detachment of skin (hands, feet, right thigh, and both legs).

There were no signs of constriction on the neck. Under the hypogastric area, umbilical region, right wrist and left wrist, there were impressions caused by the rope and the chain. The autopsy showed advanced putrefaction in all organs, in particular in the brain, pancreas, and adrenal glands.

The histological examinations made it possible to detect signs of vitality on the skin of wrists and, in particular, there was oedema and intralveolare hemorrhage swelling and bleeding intralveolare and, inside the blood vessels, the red blood cells seemed conglutinate with focal fibrin blood clots. Histological examination of the heart showed only a moderate atherosclerosis in coronary vessels.

The toxicological tests carried out on tissues and fluids have ruled out the presence of drugs and/or psychotropic substances, and showed the presence of 7% of carboxyhemoglobin.

On the basis of putrefaction, the presence larval and the conditions under which he was forced, it is estimated that the death could be traced back presumably, in a variable range of about 20 days before its discovery. The increase in CO<sub>2</sub> in the blood was responsible for a respiratory acidosis with consequent iperpnea-vasodilation, sweating, dehydration, peripheral venous stasis, ispiatio sanguinis, red cell lung clots, and cardiorespiratory failure that led to the death the subject.

#### **Asphyxia, Confinement, Kidnapping**