



G144 A Case of Suicide by Nembutal: The Consequences of Free Trafficking Drug Online

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The goal of this presentation is to show a suicidal case of a veterinarian and/or human barbiturate euthanasia agent (Nembutal), purchased freely online. Postmortem findings with a complete histological and toxicological analysis of pentobarbital distribution in fluids and tissues are discussed.

This presentation will impact the forensic science community by showing the importance of an accurate anamnestic, circumstantial, histological, and toxicological investigation in all drug-related deaths. At the same time pointing out that pentobarbital is not available in pharmacies as a commercial preparation, but its online traffic is completely free for anyone.

Pentobarbital is a hypnotic belonging to the class of rapidly acting barbiturates. Sodium pentobarbital, which is also called "truth serum", was adjunct during narcoanalysis to allow increased interaction of catatonic and schizophrenic patients with therapists, particularly during the treatment of these patients during the 1930s and 1940s. Today it is commonly used in pharmaceutical preparations for the euthanasia of animals. On the one hand, accidental and volunteer overdose caused by short-acting barbiturates in humans have become rare since these molecules became commercially unavailable as sleeping drugs/hypnotics. On the other hand, suicidal ingestion of a lethal dose of pentobarbital has increased because it is advocated by the "Exit" association. This association provides assistance to individuals wishing to commit suicide because of lasting painful disease or severe degradation of their physical condition. Even if the pentobarbital is not available in pharmacies as commercial preparations, it could be ordered with a medical prescription from local drug distributors; its online trafficking is completely free, as this case demonstrates.

A 24-year-old male was found dead in a bedroom of a bed and breakfast by an attendant. He was a fourth-year medical student who had supported a few tests, when, two years after the end of a relationship, he fell into depression. Followed by specialists, a "bipolar disorder" was diagnosed. In February 2012, his mother was aware that the young man had bought online from Mexico a drug used in veterinary medicine: Nembutal. Obtaining information about the shipment, the woman was able to seize the substance. Twenty days before his death, the mother had been informed by a friend about another online purchase of Nembutal from China. It arrived by mail but the parents were unable to seize the substance. On April 3, 2012, the young man pretending to sleep at a friend's, reserved a room at a bed and breakfast, where he was found dead the following day at 1 p.m. The corpse was lying on the bed; and, next to him, an empty bottle of whisky and two packets of white dust (one empty and one full) were found.

A complete autopsy was performed 24 hours after death. The external examination revealed traumatic lesion. The internal examination revealed only polivisceral stasis and massive pulmonary and cerebral edema. Histological examinations showed, in the brain, cytotoxic and vasogenic edema and red neurons; in the myocardium, interstitial edema; in the lungs, massive endoalveolar edema; in the liver, sinusoidal stasis and macrovesicular steatosis. A comprehensive toxicological screening was performed on postmortem cardiac blood, urine, bile, gastric contents, and tissue homogenates (liver and kidney) using a combination of immunoassay and chromatographic techniques. In all the biological fluids and tissues, lethal concentrations of pentobarbital were confirmed (blood: 57,461mcg/mL; bile: 890,67mcg/mL; urine: 7.06mcg/mL; gastric contents: 13474,96mcg/mL; liver: 512,48mcg/mL, kidney: 361,77mcg/mL). Ethanol and volatile compounds in peripheral blood were sought by head-space-gas-chromatography equipped with flame ionization detection (HS-GC-FID); it showed a very high level of alcohol in the blood (1,2903g/l). The presence of pentobarbital was also confirmed by toxicological examination of the white dust.

According to the crime scene data, autopsy, histological, and toxicological findings death was attributed to acute pentobarbital intoxication.

Pentobarbital, Drug Online Trafficking, Toxicological Finding