D13 Body Rendering by Drug Cartels in San Diego: Case Study of Caustic Soda

Madeleine J. Hinkes, PhD, San Diego Mesa College, Dept Behavioral Sciences, 7250 Mesa College Drive, San Diego, CA 92111; and Jonathan Lucas, MD, ME Office, 5570 Overland Avenue, Ste 101, San Diego, CA 92123*

After attending this presentation, attendees will have a better understanding of the effects of caustic soda (sodium hydroxide, lye) on human remains.

This presentation will impact the forensic science community by presenting unusual case circumstances rarely seen in the medical examiner's office.

Ever since Adolph Luetgert tried to render his wife's body in a vat of caustic potash in his Chicago sausage factory (1897), individuals seeking to avoid discovery of a murder or to confound identification have used caustic substances to destroy human flesh and bones. Usually, the substance of choice has been an acid: muriatic acid; sulfuric acid, or hydrochloric acid. Research and case work have shown that these strong acids are very effective at destroying soft tissue and demineralizing bone. Many of these same studies have shown that sodium hydroxide and other alkaline lye substances have minimal effect on tissue integrity. This presentation (as well as Luetgert's experience) demonstrates otherwise.

The case study comes from San Diego County. Los Palillos are a cartel-like gang along the border with Mexico that makes its money by trafficking drugs and kidnapping victims for ransom. They often resort to murder to take out competitors. Between 2004 and 2007, they were responsible for at least nine murders in the San Diego area. Bodies were tossed in streets, left in cars, and, on at least one occasion, dissolved as far as possible, dumped, and buried. A cooperating witness detailed the events for the prosecution.

In May 2007, two men were kidnapped, held for ransom at a residence in Chula Vista, CA, for two weeks, then beaten, strangled, stripped, and dumped headfirst into barrels of water and *sal caustica,* which the cooperating witness had been sent to buy. The perpetrators referred to the substance as "acid" but it clearly was an alkaline lye substance. The barrels were heated for hours, and then the bodies were left to soak for three days. The barrels were transported to a ranch in the Tijuana River Valley, where their contents were dumped into a prepared pit and covered over.

In October 2009, the remains were recovered and brought to the Office of the Medical Examiner for San Diego County for analysis. The remains were received in 55-gallon and 30-gallon drums and two boxes. The boxes contained numerous bone fragments and fourteen teeth. The drums each contained an odorous semisolid gelatinous mass dotted with bone fragments and flakes of caustic soda. The recipients (a forensic anthropologist and a forensic pathologist) had never seen anything quite like it. Many hours were spent cutting through this greasy mass and cleaning the bone fragments. The bone fragments were basically husks, the protein matrix having been destroyed. This was a very different outcome from what had been seen in previous known cases of acid use, where the bones become quite flexible. A detailed discussion of the nature of the remains will be presented.

The foot bones turned out to be well represented, to the point where three talus and three navicular bones (two lefts and one right) could be identified, indicating two persons. A fragment of ischiopubic bone indicated a male in his late twenties to early thirties, and shoveled incisors suggested possible Southwest Hispanic ancestry. A DNA expert at the crime lab was able to extract usable DNA to identify one of the victims as one of the men who had gone missing two years earlier.

The case went to trial in the spring of 2012. Testimony of the cooperating witness was graphic and compelling. The forensic anthropologist was able to explain to the jury the process of bone sorting and identification. Both defendants were convicted and sentenced to life in prison.

Body Rendering, Lye, Bone Analysis

 ** Presenting Author*