H43 What Lies Beneath: Re-Examining a Cold Case Homicide From a Forensic Anthropological Perspective - A Case Report

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The goal of this presentation is to bring continual awareness to the need for collaboration in the various fields of forensic science such as forensic pathologists and forensic anthropologists.

This presentation will impact the forensic community by showing how a recent collaboration between the medical examiner and forensic anthropologist revealed significant new evidence that warranted the revision of the crime reconstruction.

Within the last decade in the United States forensic anthropologists have become more prominent participants in the analysis of cases that are brought to the medical examiner's office. Forensic anthropologist's participation often leads to the discovery of significant information that aids in the identification of an individual and/or aids in the medical examiner's opinion of death. Now, with supported efforts by medical examiners, well-trained forensic anthropologists located in proximity to or within medical examiner's offices are re-examining human remains from numerous cold cases to perhaps discover additional evidence previously not found.

This case presentation gives a strong argument for the need for collaboration between various forensic experts, such as the forensic pathologist and forensic anthropologist. This case report shows how the forensic anthropological analysis disclosed significant additional evidence in this homicide case. Initially, the external examination revealed the predominance of sharp force trauma; however, after the anthropological examination it was clear that blunt force trauma was equally prevalent. The anthropological report was significant enough to warrant changes in the reconstruction of the activities of the crime.

In 2007, the present Chief Medical Examiner of Galveston County, Texas requested an anthropological examination of the desiccated remains of an unidentified individual whose medical examiner's report fourteen years ago stated cause and manner of death as homicide by multiple stab wounds. Multiple stab wounds were found on the desiccated tissue of the neck, chest, and abdominal regions. The medical examiner's opinion of death is not refuted by the present Chief Medical Examiner; however, it was believed identification information or evidence of additional trauma could be obtained by a more detailed analysis of the skeletal remains.

A detailed examination revealed that, in addition to multiple stab wounds, the individual had multiple bone fractures as a result of blunt force injuries. Fractures were identified on the mandible, hyoid bone, mineralized portion of the thyroid cartilage, left and right ribs, cervical and thoracic vertebrae, left scapula, the ilio- and ischiopubic rami of both *os coxae*, and the sacrum. An excessive amount of force is required to produce fractures of both the sacrum and the *os coxae* and, typically, massive intra- and retroperitoneal hemorrhaging occurs. The comminuted fracturing of the pubic bone and both rami can be categorized as crushing fractures and have been noted in vehicular impacts. Cervical vertebrae fractures are also associated with violent force. This additional information was of significant importance in the continual resolution of the case and is another example of the synergistic relationship needed between forensic pathologists and forensic anthropologists in the analysis of human remains in the later stages of decomposition.

Forensic Anthropology, Forensic Pathology, Blunt Force Injury

 ** Presenting Author*