A162 The Determination and Prevalence of Non-Forensic Specimens in an Unidentified Collection at the Georgia Bureau of Investigation (GBI)

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Learning Overview: After attending this presentation, attendees will be exposed to the intricacies of determining the difference between forensic and non-forensic skeletal material and will understand the issues faced by medicolegal professionals before and after such materials have been misclassified.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by demonstrating the potential for non-forensically significant material to become confused as forensically significant material without proper analysis by a forensic anthropologist. This presentation will aid in the identification of non-forensically significant materials by highlighting common taphonomic changes, craniometric markers, and curatorial differences.

Collections of unidentified remains at medical examiner offices and law enforcement agencies are believed to represent either forensic cases that are pending identification or forensic cases that are deemed to be "cold cases." In 2016, legislation was passed that allowed for the burial of a large collection of unidentified skeletal remains at the GBI. The unidentified collection at the GBI is comprised of 272 individuals dating back from the 1960s through present day. Prior to interment of the remains, it was decided that a thorough examination of every case was necessary to create a robust case file in the event that a lead on identification of a set of remains arises. Non-forensically significant specimens are often misclassified as forensic in nature. In the state of Georgia, 153 counties use the GBI Medical Examiner's Office to help identify osseous material. Once at the morgue, remains are first reviewed by a forensic pathologist prior to requesting an anthropological consultation. If anthropological analysis was not available at the time, non-forensically significant materials were often classified as "cold cases." This misclassification results in a loss of time, resources, and funds during the investigative process.

This study examines the prevalence of non-forensically significant remains present in the unidentified collection at the GBI and hypothesizes that a number of skeletal remains within the "cold case" collection are not of forensic significance and thus can be eliminated from further investigation. For this study, each set of remains had a complete anthropological analysis conducted, including construction of a biological profile through both macroscopic observations and metric analysis, and received taphonomic and trauma analyses. Craniometric landmark data were collected using a MicroScribe® G2x digitizer and 3Skull analysis software. Postcranial element measurements were also recorded. Metric measurements were analyzed using FORDISC® 3.0 and were compared against both the Forensic Data Bank and the Howell's Data Set.

This study finds that approximately one-tenth (n=24) of the entire unidentified collection at the GBI represent non-forensically significant cases. These include remains that are taphonomically distinguished as belonging to historic burials, of anatomical teaching specimen quality, trophy skulls, and other black market materials. This high prevalence means that forensic anthropologists, forensic pathologists, and medicolegal investigators should remain vigilant when osseous materials are examined to ensure materials are classified correctly. It is also urged that remains that have not been analyzed previously receive an anthropological analysis to ensure they are actually forensic in nature.

Taphonomy, Misclassification, Craniometrics

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