

## H53 Traumatic Modifications of Human Remains of Victims of Mass Disasters and Long-Term Abuse

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After attending this presentation, attendees will learn how conditions of preservation of decomposed bodies and skeletons of human victims of natural and man-made fatalities are compared with markers of long-term abuse, as with prisoners and kidnapped individuals held under harsh circumstances. Three forensic anthropological case histories are examined by this investigator in defining distinctive markers of trauma of victims of mass disasters and long-term physical abuse. Absence of skeletal and dental markers of tortured individuals may indicate non-invasive practices of interrogation.

This presentation will impact the forensic community and/or humanity by acquainting forensic anthropologists with military and civil law practices of interrogation of political and criminal prisoners, some methods revealing markers of abuse on bone tissues. These are more easily recognizable among inmates imprisoned after civil court sentencing than among prisoners under military jurisdiction, as at Guantanamo and Abu Ghraib where psychological stressors are inflicted with less involvement of the cranial and postcranial skeleton. The author's examination of the skeletal series of prisoners from a civil prison in a foreign country is described in order to alert forensic anthropologists to recognize markers of interrogation or punishment. Humanity benefits from this and related prison studies in questioning the ethical practice of physical and psychological torture.

How may forensic anthropologists distinguish traumatic modifications of human body parts resulting from mass disasters from skeletal evidence of long-term abuse, as among prisoners held under harsh conditions? Victims of suicide bombers, airplane and train crashes or of natural agencies (earthquakes, floods, mud-slides, fires, etc.) are often represented by fragmentary body parts, thereby making positive personal identification a challenge for forensic scientists associated with Disaster Mortuary Operational Response Teams, the Joint POW/MIA Accounting Command Central Identification Laboratory, and other recovery teams. However, for incarcerated individuals personal identify is usually known. The problem posed in this investigation is the determination of methods used by prison staff for interrogation, punishment, neglect, or withholding of medical treatment. Markers of these traumatic conditions may be documented as skeletal evidence of abuse.

Stress markers are not uncommon on skeletal remains of prisoners who were incarcerated by civil law. The author has investigated a series of skeletons of twentieth century prisoners, all males, from prisons in a Eurasian nation. Trauma is frequently encountered in cases of unset fractures of long bones inflicted by wooden or metal rods (fellow prisoners would not have the skill to reset bones), facial damage resulting in loss of anterior teeth, and injuries of the cranial vault. In cases where dental reconstruction was attempted (following traumatic force to the face), the crudest and cheapest materials were used. Medical records are not available for this prison series, but sex, age and time of death, pathological conditions, and estimates of time passed since the infliction of injuries can be assessed.

Illustrations of skeletal modifications induced in this series of civil law prisoners who were victims of abuse in order that forensic anthropologists may more clearly recognize bone modifications under stressful penal conditions, features less often encountered in victims of mass fatalities or in psychological methods of interrogations, will be presented.

## Forensic Anthropology, Mass Fatalities, Prisoners