

The Cleveland Strangler and His Victims

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The present paper underlines the necessity of a coordinated group effort to timely identify the victims of a crime especially in serial homicides. In October/November 2009, 10 badly decomposed human bodies and a skull were discovered from the house of a convicted rapist in Cleveland Ohio. There were no investigative leads about the identities of the eleven victims. Using DNA technology ten of the victims were identified within first two weeks of the discovery of the first body.

The autopsy and anthropological examination revealed that all the victims were African-American females. Local residents were requested and encouraged through media to provide a DNA sample if an African-American woman was missing in their families.

A special missing persons database was created at Coroner's Office so that information can be obtained if anyone is calling for a missing person and also that information can be provided to them for providing a DNA sample.

A coordinator was assigned by the Cleveland Police department for their missing persons' list. DNA samples were requested from mothers and children of the missing African-American women. In case mother and children were not available, samples were requested from biological siblings of the missing women.

The relatives were asked to contact Cuyahoga County Coroner's Investigations Department to provide DNA samples.

DNA samples in the form of buccal swabs from each individual from all relatives were collected at the Cuyahoga County Coroner's Office by the Parentage & Identification Department.

DNA analysis was divided in three phases:

- Development of DNA profiles from the victim's DNA samples
- Development of DNA profiles from relatives of missing persons
- Comparison of DNA profiles of the victims with relatives of missing persons and performing relationship analysis

DNA analysis of the victims' samples (bones and teeth) was performed by Forensic DNA Department of the Cuyahoga County Coroner's Office.

All samples were extracted using organic extraction method. Quantity of human DNA in each sample was determined using Quantifiler Duo Human DNA quantification kit on AB 7500 Real Time PCR instrument and all DNA samples were amplified using PowerPlex16 system. The amplified products were run on AB 3130 Genetic Analyzer and the data was analyzed using GenemapperID software and DNA profiles were successfully generated for all 11 victims.

All DNA profiles were then submitted to the Parentage and ID department for comparison and relationship analysis.

DNA analysis of the relatives' samples (buccal swabs) was performed by Parentage & ID Department of the Cuyahoga County Coroner's Office.

All samples were extracted using DNA IQ extraction method and were amplified using PowerPlex16 system to keep consistency between the profiles developed by the Forensic DNA department, and the Parentage & ID department. The amplified products were run on AB 310 Genetic Analyzer and the data was analyzed using GenemapperID software and DNA profiles were generated for the relatives of the missing persons.

The DNA profiles of the relatives were compared against the DNA profiles of the victims.

Relationship indices and probability of alleged relationship between the victims and the alleged relatives were calculated using DNA View program.