

DNA ANALYSIS FOR THE IDENTIFICATION OF HUMAN REMAINS, MEDELLÍN – COLOMBIA. 2007-2011

Paula Andrea Ortega Segura

National Institute of Legal Medicine and Forensic Sciences

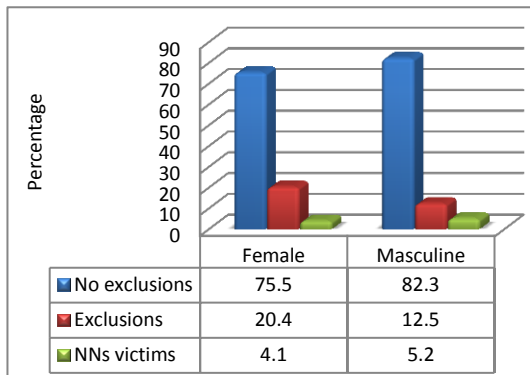
METHODS

Cross-sectional observational study with data provided by the National Institute of Legal Medicine and Forensic Science -NILM and FS. The information was collected through a review of 896 cases received between January 2007 and October 2011.

We used descriptive statistics for results.

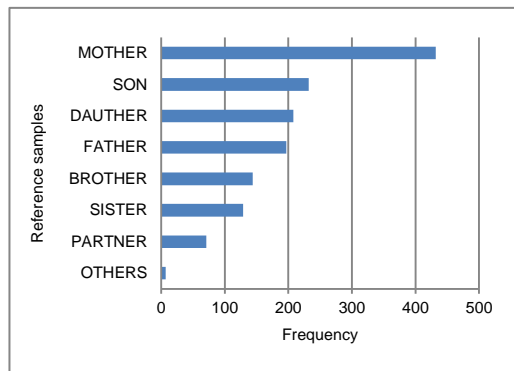
RESULTS

1. Results of DNA testing by sex



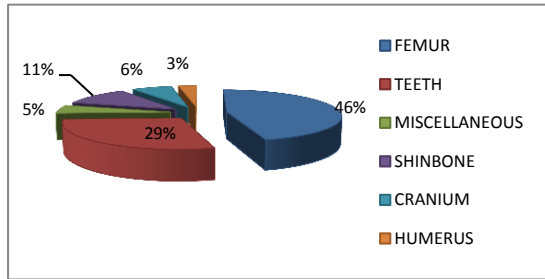
Women = 98 (10,9%) Men= 713 (79,5%)
No genetic profile was obtained in 74 (8, 2%) cases.
Mitochondrial DNA analysis in 11 (1,4%) cases.

2. Distribution of the type of reference sample



Blood/ saliva samples were collected from 1420 people.

3. Percentage of type of specimen received for analysis



1131 Bone and/or dental samples were received

CONCLUSIONS

- Currently the NILM and FS has experimental protocols that are good and have a rigorous process in gene identification, human efficiency in human DNA obtained from different tissues and degree of decomposition.
- The genetic identification methods used present high sensitivity for the characterization of genetic profiles, which contributes to the relationship of processes victims (90.6%).
- Were collected biological samples of relatives in 91.7% of cases for the genetic matches, creating greater efficiency in the programs for identification of victims and delivery of bodies to relatives

SUMMARY

Violence in Colombia has been presented in different modalities as evidenced in the following table:

Major crimes in fact confessed to March 31, 2012	
Massacres	894
Homicides	23.092
Illegal recruitment	1.487
Forced Disappearance	3.272
Forced displacement	10.264
Extortions	997
Kidnapping	1.535
Sexual violence	79
Torture	713
Traffic, manufacture or possession of drugs	62

Available: <http://www.fiscalia.gov.co:8080/justiciapaz/Index.htm>

Victims of violence regularly are recovered in skeletal reduction, limiting its identification to the analysis of DNA from bone samples and / or dental services.

This work aims to show the analysis of processes identification made at the Laboratory of Forensic Genetics Northwest Region during the period of 2007-2011, where have used organic extraction techniques and molecular techniques as PCR and capillary electrophoresis for loci analysis of micro satellites included in the system Combined DNA CODIS indices, among others.

Bibliography

1. Congress of the Republic of Columbia. Law 975 of 2005, article 5.
2. Schwark T, Heinrich A, von Wurmb-Schwark N. Genetic identification of highly putrefied bodies using ADN from soft tissues. *Int J Legal Med.* 2010.
3. Butler, J. M. Genetics and Genomics of Core Short Tandem Repeat Loci Used in Human Identity Testing. *Journal of Forensic Sciences*, 51: 253–265. 2006. ☞