HUMAN IDENTIFICATION OF SKELETAL REMAINS IN MISSING PERSONS DURING TRUJILLO'S DICTATORIAL REGIME IN THE DOMINCAN REPUBLIC

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Introduction: On June 19, 1949, in an attempt to overthrow Dictator Rafael Leonidas Trujillo, a seaplane arrived at Luperón with a contingent of 15 explorers. Among them there were several international guerrillas, 3 American pilots: Herbert Maroot, John M. Chewing, George Scruggs and a Nicaraguan: Alejandro Selva. All four lost their lives. The skeletal remains of George Scruggs and Alejandro Selva were recovered 66 years after their death and for their identification a DNA Test was performed.

Objectives: 1- Obtain useful DNA from bones and teeth that had been exposed for a long time to extreme weather conditions. 2- Identify the remains of George Scruggs by establishing parenthood with a living son.

Methodology: DNA extraction with a protocol using magnetic particles developed in REFERENCIA Laboratorio Clínico, Dpto. de Filiación. Autosomal DNA was amplified with PowerPlex®21 System and AmpFlSTR®NGM SElect PCR. For Y chromosome, AmpFlSTR® Yfiler™ was used. Amplicons were analyzed in an ABI Prism®3130, with GeneMapperID-X™ v.1.1.1 software.

Results: A unique genetic profile was obtained for each skeletal remain with 16 Autosomal DNA STRs and a Haplotype with 16 Y chromosome STRs. The minimum detection limit was 50 RFU. The statistical calculations were performed using DNAVIEW software with Caucasian database.

Conclusions: Using the Paternity Test we identified one of the two skeletal remains as belonging to the probable biological father. The Total Paternity Index (Combined Autosomal Index by Y Haplotype Index) was 895050 with a Probability of Paternity of 99.9998 %.

Keywords: Skeletal Remains, STR DNA, Paternity, Dominican Republic, Trujillo.