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EDITORIAL ARTICLE

File 120: The Database of DNA profiles from the National Institute of Toxicology and Forensic Sciences of people affected by the subtraction of newborns[☆]



Fichero 120: la base de datos de Perfiles de ADN del Instituto Nacional de Toxicología y Ciencias Forenses de personas afectadas por la sustracción de recién nacidos

Gloria Vallejo de Torres

Director, Instituto Nacional de Toxicología y Ciencias Forenses, Spain

The social repercussion of claims by certain families and diverse associations on the abduction of newborns has led to numerous institutions promoting and promulgating investigations both to determine if such events occurred as claimed, and to provide victims with the necessary technical resources for assisting in these investigations and to make it possible to identify birth parents with their children.

As Crespillo et al. discussed in their interesting article on the experience of the Barcelona Department of the National Institute of Toxicology and Forensic Sciences (INTCF) in these situations,¹ in 2011 the INTCF launched a protocol for the procedures for genetic identification in cases of irregular adoptions and abductions of newborns. An informative guide was prepared for the courts, the Prosecutor's Office, Legal

Medicine Institutes and forensic physicians on the technical procedure for submitting DNA samples to the INTCF in order to ensure the maximum quality of evidence and unity in scientific criteria. The guide recommended using a kit provided for such purposes that gives forensic physicians the tools they need to take oral mucosa samples and to preserve these samples until they can be analysed in the laboratory.

In addition to the investigation requests our institute has received from the courts and the Prosecutor's Office since 2011, in recent years there has also been a large number of out-of-court investigations by individuals and associations of victims of alleged cases of newborn abductions with the legitimate goal of wanting to find out their genetic identity and that of their biological family. The Ministry of Justice has committed itself to this goal, and the Office of Kidnapped Children was created under its coordination as a service for providing guidance and information on the data and official registries that are available with regard to biological parentage, and a DNA profile file was created for victims of newborn abductions (File 120). The creation of File 120 was published in Ministerial Order JUS/2146/2012 of 1 October,²

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E-mail address: gloria.vallejo@justicia.es

and it includes the official information request forms in accordance with Organic Law 15/1999, of 13 December on Personal Data Protection.

The purpose of DNA Profile File 120 is to centralise the DNA profiles of victims which had previously been spread out in various DNA databases of private laboratories or in records the INTCF had obtained over the course of its institutional investigations. The goal of centralising these data in a single database managed by the INTCF is to make it possible for all of the victims to be compared, ensuring that all of the contrasts are made between the various indices to verify whether there are genetic compatibilities that may reveal indicators of biological kinship relationships. Ministerial Order JUS/2146/2012 also stipulates that the INTCF must validate genetic profiles before recording them in File 120, and it sets forth a final procedure for verifying compatible relative candidates that entails conducting new DNA analyses and supplemental analyses. In other words, if a biological match is actually verified between two people, the institute will conduct a second DNA test to confirm that the positive results showing a match are actually correct. This involves performing a scientific confirmation to ensure the utmost technical precision and to guarantee the certainty of the expert evidence.

The institute is aware of the technical difficulty of identification studies in cases of newborn abductions due to the extensive experience it has accumulated over the years. This difficulty is mainly seen in identifications of exhumed remains that have been buried for up to six decades, and the INTCF discussed this when it appeared before the Senate Justice Committee to report on the analyses performed in the cases of abductions (Case no.: 713/000509).³

Therefore, in accordance with the "*Guide of recommendations for performing exhumations in cases of possible abductions of newborns*" published by the Ministry of Justice,⁴ the INTCF believes that an anthropological and criminological study needs to be performed in these cases, and these studies are no doubt crucial for correctly clarifying the facts in each case. In addition to this, the INTCF's procedures are in accordance with the "*Recommendations on genetic identification studies in cases of irregular adoptions and abductions of newborns*" prepared by the National Commission for the Forensic Use of DNA (CNUFADN)⁵ in May 2012, which provides general recommendations for ensuring the quality and reliability of genetic identification studies in cases of irregular adoptions and abductions of newborns, both for searching for compatibilities between live individuals using DNA databases, and for genetic identification of exhumed remains of newborns.

At the present time, the INTCF has been working on File 120 since February 2013, adding DNA profiles to it that have been voluntarily submitted to the office of kidnapped children. The INTCF first asks for analytical records from private laboratories that conducted DNA analyses on victims so that it can technically validate the genetic results, and thus ensure quality and efficacy in the search for genetic compatibilities in the INTCF's DNA database.

The validated DNA profiles are entered into the corresponding indices in the file (parents of victims/children of victims/siblings of victims), and they are systematically compared using CODIS software (the Combined DNA Index

System of the FBI, U.S. Justice Department) in the local branch of the Ministry of Justice. The CODIS v7.0 software is especially designed for integrated management of various types of genetic markers, such as autosomal STR markers, haplotypic markers of maternal or paternal lineage, mitochondrial DNA and Y-chromosome STR markers.

The INTCF operating procedure specifies that in the event of a genetic match when searching for compatibilities, an analytical verification should be performed to verify the positive match involving a supplemental analysis that adds new STR markers, increasing the number of DNA STR markers up to 21, adding other family members to the new study (if advisable), and analysing mitochondrial DNA haplotypic markers and/or Y-chromosome STR markers as specified in the recommendations of the CNUFADN.⁵

Thus far 372 victims' genetic profiles have been recorded in the INTCF database. 319 of them came from the office of kidnapped children, and 53 came from legal proceedings. 76% of the profiles that have been entered are from parents of victims, 12% are from children of victims, and 12% are from siblings. It is notable how imbalanced the database indices are, with a heavy disparity between the high number of parents versus the low number of children, and this no doubt makes successful comparisons between genetic compatibilities more difficult.⁶

Thus far the genetic profiles that are available and entered into File 120 have yet to produce a genetic match or compatibility.

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