

DNA TYPING OF A CASE OF INCEST BY THE STUDY OF AUTOSOMAL STRS – CASE STUDY

Nascimento ECS, Gesteira TCB, Oliveira JPSC, Machado LR, Shibasaki W, Oliveira ES
Coordenação de Genética Forense do Laboratório Central de Polícia Técnica da Bahia

The advances in the scientific and technological knowledge, developed and incorporated by Molecular Biology, in the last years are related with the refinement of different methodologies or technologies for the DNA study of biological materials. The molecular techniques for direct analysis of DNA are an important tool for forensic analysis, because it is easy to implement and to interpret the DNA profile. Inside this context, the study of deoxyribonucleic acid polymorphisms is used on forensic genetics to establish the biological identity, based on the DNA ability to discriminate each individual.

A 62 year old man was married to a 14 year old girl under the accusation of rendering her pregnant. Two years later, having 2 sons with the minor, the man went to the Public Ministry suspecting that the two sons were not really his sons, but sons of the minor's dad, a 43 year old man. We received the blood samples of all people involved: father, daughter, husband and sons in order to perform a genetic identification of the samples by matching of DNA profiles or genetic relationship among the people involved. The blood samples were subjected to the nuclear DNA extraction procedure known as the Chelex method. All the samples were amplified for autosomal STRs. The profiles were obtained by PCR reaction, using fluorescent labeled primers and detected by optical reading on the Applied Biosystems Avant 3100 instrument. The information about the short tandem repeats *loci* or chromosomal STR was obtained using validated commercial multiloci systems for DNA analysis, as recommended by the supplier. The multiloci system Identifiler from Applied Biosystem for sample amplification was used and the results were analyzed using GeneMapper software. After the validation of the results, it was confirmed the case of incest, based on the genetics profiles that were found. We concluded that the father of the minor was also the father of her sons. (Contact: eugenio_nascimento@yahoo.com.br).