

Kinship determination using DNA markers Estudios de parentesco mediante marcadores del ADN: Experiencia en resolución de casos en los últimos seis años

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Background: Autosomal and Y chromosome short tandem repeats (STRs) and mitochondrial DNA polymorphisms are the most commonly used molecular tools for determination of kinship. Aim: To report a revision of 1,120 kinship cases (paternity and others) analyzed in our laboratory. Material and methods: Revision of all kinship cases analyzed between years 2001-2006. Autosomal and Y chromosome STRs and mitochondrial DNA polymorphisms were analyzed in DNA extracted from blood samples. Results: Paternity was excluded in 27.2% of cases. This figure did not change significantly along years. Most paternity exclusions were confirmed by the discordance in 5 genetic markers (30.5%), followed by exclusion of 4 and 6 genetic markers (20.3 and 20% respectively). Two studied cases were paternal and maternal exclusions, corresponding to a change of children between two families. In one case, the paternal line was assessed through Y chromosome markers, studying 16 STRs of this chromosome, positively confirm