

Identification of two fire victims by comparative nuclear DNA typing of skeletal remains and stored umbilical tissues

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American Journal of Forensic Pathology and Medicine (in press). We describe here our collaborative efforts in identifying two fatalities of a fire disaster using a variety of identification techniques. Post-mortem findings in both cases were reinforced using Short Tandem Repeat (STR) DNA technology to establish with high degree of certainty, the identities of two child victims. STR markers used in the present study include HUMAMEL, HUMCSFIPO, HUMTHO1, HUMvWA, HUMFES/FPS, HUMF13A01, HUMFOLP23, D8S3O6, HUMFGA and HUMTPOX. Unambiguous identification was made possible through matching DNA profiles generated from skeletal remains with those from umbilical tissues. These tissues were kept by their mothers in accordance with a Philippine tradition and were submitted for DNA analysis. Of the DNA profiles generated from exhumed bone samples of 21 child victims, comparison with the genetic profiles of children A and B obtained from umbilical tissues showed consistent DNA matches with remains 1756 and 1758, respectively.

KEYWORDS

STR typing, skeletal remains, umbilical tissues, identification, forensic DNA typing