A12 Genetic Detection of Serial Rapists in Sexual Assault Cases in Colombia

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After attending this presentation, attendees will learn that the number of sex crimes reported has escalated, according to the National Reference Center on Violence in Colombia (CRNV). These cases require the involvement of interdisciplinary teams capable of interdisciplinary investigations. The genetics lab of the Southwestern Regional Office of the Institute in Cali has been providing investigators with genetic profiles of autosomal STRs and Y Chromosome of unknown offenders who are currently committing or have committed sex crimes. Attendees will learn how this has contributed to the association of various investigations and has helped orient the search for these offenders.

This presentation will impact the forensic science community by discussing the performance and significance of the role of the genetics lab in terms of keeping the authorities informed on the matches found in the genetic profiles database. These profiles are obtained from sexual assault cases that help orient the investigations and establish associations in order to prioritize the pursuit of the offenders. The procedure used by the lab to obtain post-coital DNA samples will be highlighted. This process obtains differential and clear profiles that minimize mixture reports. It enhances clean or major profile reports on suspects, which enhances the likelihood of finding matches between the genetic profiles of the reference population.

Sex crimes account for eighty percent of the casework of the forensic biology lab. These cases are accepted for preliminary microscopic examination utilizing Christmas Tree staining and PSA analyses, regardless of whether the offender is known. The preliminary analysis of the evidence is a priority in sexual assault cases when the perpetrator is unknown. A major drawback is the lack of a team of investigators who interact and share their findings in order to "correlate" cases and expand the information required to investigate serial rapist cases.

The need for a centralized team that understands the facts of the case and is capable of linking various sexual assault cases was recognized. Therefore, the Elite Sex Crimes Team (GEDES) was created in Colombia. GEDES is currently operating in Bogotá and has carried out routine operations where the investigators have analyzed cases for similarities, common areas, and "modus operandi." Simultaneously, the lab is required to obtain a genetic profile from the evidence and conduct a search in CODIS.

The Southwestern Regional Office is currently working on the creation of a GEDES team. This effort is required to detect serial rapists, based on the medical history obtained as a result of forensic sexual assault examinations conducted by the medical examiners of the Institute of Legal Medicine. This will guide law enforcement in terms of prioritizing their investigations and arresting the offenders. Based on the genetic findings from the evidence, the regional genetics lab has made contributions to the investigation of eight sexual assault cases. The matches of the genetic profiles obtained from the evidence have confirmed the involvement of two unknown perpetrators.

Additionally, the genetics lab of the Institute recognizes the importance of obtaining genetic profiles for purposes of comparing them to the national CODIS database. The analysis of sexual assault cases is the lab's priority. Consequently, the implementation of standard procedures to obtain genetic profiles from both perpetrators and the victims is essential.

Sexual Assault, Genetic Profile, CODIS

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