



A169 Retrospective Study of 150 Sexual Assault Cases

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After attending this presentation, attendees will have an understanding of the importance of blind collection of potential oral contact site swabs, the possible discrepancy between vaginal smear slide results obtained by forensic medical examiners versus the forensic laboratory scientist and the importance of proper collection of rectal swabs. Additionally, overall DNA typing results of these cases will be reported.

This presentation will impact the forensic science community by adding to the practical knowledge of the laboratory scientist and forensic medical examiner and potentially affecting policy change with respect to sample collection post sexual assault.

According to the Bureau of Justice Statistics, approximately one in five women is sexually assaulted during their lives. DNA technology in combination with CODIS databases is a powerful tool for the identification of sexual assailants. However, without proper evidence collection, DNA typing from sexual assault cases could not be conducted. Thus the individuals responsible for the crimes would not be identified. In that vein, it is absolutely imperative to discern the best methods of evidence collection, preservation, and analysis.

The evaluation of 150 sexual assault cases collected by medical practitioners at Highland Hospital in Oakland California and examined by Criminalists at the Oakland Police Department (OPD) Criminalistics Laboratory was conducted. Cases assigned the California penal code: 261 and analyzed by the Criminalistics Laboratory between August 2003 and October 2007 were examined. No other penal code cases were utilized. These cases include only sexual assault examination of female victims aged 14 years and older and were selected from approximately 300 forcible rapes per annum from the same time period.

Microscopic examination of the vaginal smear slides by the forensic medical examiner resulted in observation of sperm 13% of the time. When the examiner observed sperm, the crime laboratory scientist also observed sperm on the corresponding vaginal swab 100% of the time. Of the 119 cases which were sperm negative when examined by the forensic medical examiner and the nine cases in which no wet mounts were prepared, subsequent examination of x-mas stained slides in the forensic laboratory detected sperm in 57 cases, a yield of 48%. Of these 57 cases, complete foreign DNA profiles were obtained in 37 cases (65%), partial profiles with sufficient data for upload to CODIS were obtained in 10 cases, and few alleles were obtained for six cases. The evaluation of these 150 cases resulted in probative DNA profiles being obtained from 100 cases. Oral contact samples yielded the only probative DNA profiles in 10% of cases. Twenty victims reported a lapse of consciousness. Potential oral contact samples from these victims were not ubiquitously collected. Policy should be implemented such that neck, face and breast swabs are routinely collected from victims.

There are 21 kits with reported penile anal penetration. One case had no anal or rectal swabs collected even though there was a report of anal penetration. Eleven (52%) cases had anal swabs collected and 10 (48%) cases had rectal swabs collected (one of these cases had anal and rectal swabs collected with an anoscope used for the rectal swab collection). Seven (33%) cases had rectal swabs collected using an anoscope. An additional case may have had an anoscope used for the collection of the rectal swab; however, the writing on the sexual assault medical report was illegible. This means, including the report with the illegible writing, rectal swabs were collected improperly (without the use of an anoscope) for four cases and no rectal swabs were collected for 10 cases. Rectal swabs need to be collected via anoscopy for all reports of anal penetration.

Sexual Assault, Forensic Evidence, Oral Contact