

WASHING PUBIC HAIRS - A DIFFERENT ANALYSIS OF A SPECIMEN ROUTINELY COLLECTED IN SEXUAL ASSAULT INVESTIGATIONS

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Advances in the sensitivity of DNA analysis, through STR multiplexing and capillary electrophoretic typing systems, allow typical items of evidence collected in criminal investigations to be examined in new ways. Known pubic hair samples are routinely collected as evidence for use in hair comparisons in sexual assault cases. Pubic hairs may also retain various body fluids transferred between individuals during a sexual assault. "Washing" is used to describe the process of obtaining any biological material potentially present on the surface of the hair for subsequent DNA analysis. This can be accomplished by swabbing individual hairs, by soaking and briefly vortexing hair shafts in an aqueous solution or simply by organically extracting the hair shafts of a pubic hair sample. Pubic hair samples collected from both suspects and victims have been washed, yielding probative DNA profiles in several sexual assault cases.

This poster highlights data obtained from a sexual assault case where the victim's pubic hair sample was extracted and typed. The pubic hair sample was amplified using the Promega PowerPlex® 16 amplification kit and typed on the ABI Prism® 310 Genetic Analyzer. A DNA mixture profile was obtained from the victim's pubic hair sample that was consistent with originating from the victim, the suspect, and another unknown female individual. DNA from the unknown female was also detected from blood present on the suspect's penile swab and on the fly of his jeans. The DNA from the pubic hair sample proved to be the only evidence in this sexual assault case indicating direct sexual contact between the victim and the suspect.