



K44 Toxicological Findings in Cases of Sexual Assault in the Netherlands

Ingrid J. Bosman, PhD*, *Netherlands Forensic Institute, Laan van Ypenburg 6, The Hague, 2497GB, NETHERLANDS*

After attending this presentation, attendees will be provided an overview of the extent and types of drugs found in forensic cases of alleged drug facilitated sexual assault in the Netherlands.

This presentation will impact the forensic community by providing data on the most common drugs found in victims of alleged sexual assault in the Netherlands.

Reports on cases of alleged drug facilitated sexual assault have increased since the 1990s. The prevalence and types of drugs encountered during investigations of alleged sexual assault are likely to differ between countries depending on social norms and the use of drugs in society. Alcohol alone, or together with other drugs has been a common finding in many previous studies in America, Australia, the United Kingdom, and Sweden.

In this paper, the toxicological results from cases of drug-facilitated sexual assault were examined that were presented at the Netherlands Forensic Institute (NFI) between January 2004 and December 2006. The aim of this study was to identify the extent and types of drugs found in cases of alleged sexual assault. Included were those cases with an indication for sexual assault in the archives and the presence of a blood sample, a urine sample or both for analysis. Depending on the case description, information from the police, the type of biological material and the amount of sample available, analysis of alcohol, GHB and/or screening methods for drugs of abuse and prescription drugs were performed. For confirmation analysis, specific methods for the different classes of drugs were used, mostly involving GC-MS after SPE and derivatisation.

In total, 135 cases of alleged drug facilitated sexual assault were identified; 35 cases were included in 2004 and in the years 2005 and 2006 fifty cases per year were included. In 28 of the submitted cases only blood samples were available, in 50 cases only urine samples, and in 57 cases both blood and urine samples were present. Along the year, there was no clear seasonal variation in the number of reported cases of alleged sexual assault. Although the total number of reported cases is small, this is in contrast with other literature reports showing peaks during summer months or in December during the festive season. Most of the victims were female (94%) and the mean age of the victims was 25 years (range 4 – 69 years, median age 24 years).

In 27% (36 out of 135) of the cases no alcohol and/or drugs were found. The relationship between these negative toxicology results and time delay between alleged sexual assault and sampling was examined. This showed that with a time delay of less than 12 hours 11% of the cases were negative, with a time delay between 12 and 24 hours 25% and with a time delay of more than 24 hours 47% showed negative results. Therefore, some cases may represent false negative results due to the time delay.

In 108 cases, blood or urine samples were tested for both alcohol and drugs. In 47% of these cases alcohol was detected: in 22% of the cases alcohol was the only drug identified and in 25% of the cases alcohol and at least one drug were tested positive.

In 134 cases, blood or urine samples were screened for drugs. In 54% of these cases at least one drug was identified. The most common group of drugs identified was the analgesic group with paracetamol and ibuprofen being the most frequently found in respectively 27 and 16 cases. Cocaine, MDMA and THC or metabolites were the most commonly illicit drugs found. The so-called date-rape drug GHB was detected in only two cases (out of the 109 tested). Benzodiazepines were detected in 14 cases.

In conclusion, the results show that alcohol is the most commonly found drug in alleged sexual assault cases followed by analgesics, illicit drugs and benzodiazepines. Although it was not possible to distinguish between voluntary and involuntary ingestion, the presence of drugs may contribute to the victim's vulnerability. In some cases the absence of alcohol and drugs may represent false negative results due to the time delay between alleged sexual assault and sampling.

Sexual Assault, Alcohol, Drugs