

DRUG FACILITATED SEXUAL ASSAULT.

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Drug facilitated sexual assault (DFSA) is getting more concerned not only by the Law-enforcement agency but also the Emergency medicine. In medical aspect, while managing the suspicious cases of victims, the importance of history taking, physical examination, and particularly the toxicology laboratory diagnosis are some essential procedures which can not be overemphasized. The National Poison Center of Taiwan (NPCT), located in the Taipei Veterans General hospital, has been designated and charged, by the Law-enforcement agency, to run the Toxicological Laboratory Analysis in confirming the diagnosis of victim cases from suspicious of drug facilitated sexual assault. Excluding alcohol and GHB, a commercial kit of EIA was used to do the urinary screening for drugs of potentially to be used in DFSA. GC/MS and LC/MS/MS were then followed to be used in different approach of laboratory confirmation for Basic drugs search and benzodiazepines. From 2008 to July of 2011, 469 suspicious cases were tested in the NPCT, 446 (95.1%) was found to be positive either by the method of GC/MS or LC/MS/MS, and was categorized as suspected cases. Among them, 121 (27%) was found to have drug of abuse, and 110 (24.7%) was found to have been involved with the use of Benzodiazepines. Comparing with GC/MS, the use of LC/MS/MS has gained an increased positive rate of BZD identification from 76 cases up to 139 cases. The most common drugs of abuse were Ketamine and Amphetamine group. The most commonly used of knock-down drugs was FM₂. LC/MS/MS has better value in the way of limit of detection (LOD), which evidently is more powerful in the concern of increasing the sensitivity and capacity of comprehensive detecting. Case examples will be used to illustrate the niche of this approach.