Letter

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The overwhelming issue of Drug Facilitated Sexual Assaults (DFSA): the case of GHB

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Abstract

Drug-facilitated sexual assaults (DFSA) currently represent overwhelming issue in its multidisciplinary approach. They occur when alcohol or drugs are used to compromise an individual's ability to consent to a sexual act. These substances facilitate a perpetrator to commit sexual assault because they inhibit a person's ability to resist and can prevent them from remembering the assault.

If on the one hand alcohol remains the most commonly used drug in crimes of sexual assault, on the other hand drugs being used by perpetrators in crimes of sexual assault include, but are not limited to, Rohypnol (but also other benzodiazepines can be used), GHB (Gamma Hydroxybutyric Acid), GBL (Gamma-Butyrolactone), ketamine and others.

The authors briefly examine the main issues of GHB-facilitated sexual assault in forensic investigation, drawing the attention of the whole scientific community to the importance of a correct assessment of each GHB-FSA, even when it is only suspected and by providing some practical advices. ***Clin Ter 2020; 171(1):e44-45. doi:10.7417/CT.2020.2187***

Key words: *Drug Facilitated Sexual Assaults (DFSA), GHB, GBL, Forensic Toxicology*

Dear Editor,

Drug-facilitated sexual assaults (DFSA) currently represent overwhelming issue in its multidisciplinary approach. They occur when alcohol or drugs are used to compromise an individual's ability to consent to a sexual act. These substances facilitate a perpetrator to commit sexual assault because they inhibit a person's ability to resist and can prevent them from remembering the assault (1). If on the one hand alcohol remains the most commonly used drug in crimes of sexual assault, on the other hand drugs being used by perpetrators in crimes of sexual assault include, but are not limited to, Rohypnol (but also other benzodiazepines can be used), GHB (Gamma Hydroxybutyric Acid), GBL (Gamma-Butyrolactone), ketamine and others (2-5). GHB (together with its precursor GBL) is a central nervous system depressant, primarily used as a recreational drug of abuse with numerous names (6). It has also been involved in various instances of drug-facilitated sexual assault due to its potential incapacitating effects (7). This is the reason why the expression "GHB-facilitated sexual assault" (GHB-FSA) has been coined and it refers to the intentional administration of GHB/GBL by the offender(s) to a victim usually, but not exclusively, in a dating context in the form of a colourless and odourless liquid or a white powder. In this way, it can easily be added to a drink with the victim being unaware of its presence, and after, under the effects of GHB-related intoxicated state, the victim is forced to have sex (8). In forensic investigations dealing with GHB-FSA, a crucial point is represented by a careful evaluation of the biological matrix/matrices to collect and analyze for demonstrating a possible GHB unconscious intake. Taking into account the rapid metabolism and elimination of GHB (within 4–8h post-ingestion), blood and urine concentrations drop very quickly to endogenous values. Because of this, the use of hair as alternative matrix to prove an exposure in recent or far past has been mostly applied. In this concern, different authors claimed that even after weeks or months from GHB-FSA, the hair segment corresponding to the time of the event presents a GHB concentration increase undoubtedly related to unconscious intake (9-11).

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We wish to draw the attention of the whole scientific community on the importance of a correct assessment of each GHB-FSA, even when it is only suspected, by taking into consideration:

– The exclusion of previous exposure to GHB (besides the one for which the analysis is required), which can affect the results of the analysis.
– the collection of the first hair sample shortly after GHB consumption to determine the endogenous levels in all segments of hair.
– the measurement of the hair growth during the month between the first sampling (time 0) and the second one to carefully determine what should be the "targeted segment".
– the repetition of the hair sampling 1 month later and performing the segmental analysis of hair from the root to the distal end and cutting the hair into 5 mm (or less) segments.
– the exclusion of the first segment (root part, first 5 mm) since it is more prone to be contaminated by GHB incorporation through sweat.
– the calculation of the ratio between the targeted segment and the mean of the others, with the exception of the first.
– the use of "each subject as his own control" (8-13).

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