

REVIEW

γ -HYDROXYBUTYRIC ACID (GHB) AND ITS CHEMICAL MODIFICATIONS: A REVIEW OF THE GHBergic SYSTEM

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γ -Hydroxybutyric acid (GHB) is a naturally occurring substance with function of an inhibitory neurotransmitter in the central nervous system in mammals. GHB can be used as a medicine in narcolepsy (Xyrem) and for general anesthesia (sodium oxybate). It is also a popular drug of abuse, causing coma, addiction and severe withdrawal syndrome, and, therefore, demanding thorough studies on the GHBergic system and expanded research on toxicology of this compound. The aim of this review is to present the proved and some suggested mechanisms of its action from pharmacological point of view, which may help to properly treat intoxication or other pathological states caused by GHB ingestion. Some new GHB derivatives studied for analogous action and their present use are also described.

Key words: *γ -hydroxybutyric acid, 1,4-butanediol, γ -butyrolactone, NCS-382*

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