

Gamma-hydroxybutyrate intoxication in Italy related to a pharmaceutical preparation

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In Italy, gamma-hydroxybutyrate (GHB) is used to control withdrawal symptoms in the treatment of alcohol dependence. It is available in 10 or 240 ml bottle of 17,5% solution. Objective: This study evaluates a case series of voluntary intoxication by GHB in the trade pharmaceutical formulation referred to Italian Emergency Departments (EDs) and our Poison Control Centre in order to identify the characteristics of this intoxication in our country. Methods: We performed a retrospective analysis of all cases of pharmaceutical-GHB intoxication referred to our Poison Control Center over a nine-year period (2007-2015). All cases of admission to EDs for a confirmed and voluntary GHB poisoning were evaluated, while accidental intoxications (e.g. therapeutic error) were excluded. Characteristics of the poisoned patients and clinical features were evaluated. Results: 466 of the 539 cases of pharmaceutical-GHB intoxication met the inclusion criteria (M/F ratio 1,39), aged from 16 to 78 (median age 39,45+/-9). The average dose taken (known in 318/466 patients) was 76,62 ml (13,4 g; range 1,75-49 g); 26,1% of the patients were admitted to the EDs during the weekend. The 41% of patients (n. 191) ingested only pharmaceutical-GHB, while other agents were co-assumed in 275 cases (59%): among these, the main ones are sedative-hypnotics (30%), antidepressants (19%), ethanol (26%), methadone (5%), substances of abuse (8%) and other drugs for the treatment of alcohol abuse (7,6%). Severe neurological impairment (GCS <9) was present in 56,22% of all the cases (276/466), and in 36,3% of the pharmaceutical-GHB pure intoxications (121/191). Twenty-one patients (4,5%) needed endotracheal intubation and supported ventilation (4,1% in pure intoxication and 4,7% in mixed intoxications). Conclusion: Compared to the previously published studies on GHB intoxication, this case series shows some peculiarities such as (i) higher average of age, (ii) high percentage of co-assumption of medications and ethanol, (iii) lower percentage of excitatory symptoms and (iv) a homogeneous distribution of the cases during the week. The use of GHB in Italy for the treatment of alcoholism addiction should result in an easier availability for patients at risk of abuse and could explain the peculiarities of our case series.