

THE INFORMATION ANALYSIS OF POISONING CASES OF GLICLAZIDE

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Sulfonylurea derivatives (SUD) – glibenclamide, gliclazide and glimepiride form the basis of treatment for diabetes mellitus type 2. Among them – the second generation drug Gliclazide were produced in many countries by various trade names as mono-drug (Diaglizide, Diaglizide MR, Gliclazide MR, Diabeton MR) in tablets of 30, 60 and 80 mg and in the combination with metformin (Glimecomb, Dianorm-M). Lifelong application, growing number of patients with diabetes mellitus 2 type, side effects, combined therapy with other antidiabetic drugs, OTC available – are factors of toxicological hazards of uncontrolled usage of this drug.

The aim of this paper is to conduct the information analysis of poisoning cases of gliclazide and developed methods and techniques for chemical-toxicological analysis of biological objects of this drug poisoning.

Obtained results: according to the dates of conducted informational analysis of websites FDA and patientsville.com it has been found that the number of reported cases of gliclazide poisoning in the period 2008-2012 were 274, including 21 – lethal. In particular, in Europe – 180, North America – 31, Asia – 14, South America – 26, Africa – 2, Australia and New Zealand – 21. The most frequently registered poisonings of this drug have been observed in the North America, South America and Australia, owing to the availability of FDA database and the widespread application in recent years. High index of SUD poisonings in the Western Europe related to the «aging of the nation», which, in turn, is caused by an increasing number of elderly patients with diabetes mellitus type 2. If all cases of SUD poisonings will be registered in other countries, including Ukraine, their number may be much higher. The main causes of acute SUD poisoning noted with side effects of the treatment of SUD in therapeutic doses, while lethal poisoning most frequently due to intentional (suicide) and unintentional drug overdose, which depending on the circumstances in doses that are several times higher than therapeutic ones with further development of hypoglycemia, lactic acidosis, cardiovascular events, and other pathological complications. However, the available literature sources have not contained any data regarding to the developed methods and techniques of chemical-toxicological analysis of gliclazide. Conclusions: results of the conducted information analysis approve the advisability of the development of methods and techniques of chemical-toxicological analysis of biological objects at poisoning of gliclazide.