

ACUTE MEDICAMENTOUS INTOXICATIONS IN VARNA REGION FOR A 15 YEARS PERIOD

P. Marinov, M. Iovcheva, S. Zlateva, S. Petrova, Yu. Sabeva*

Military Medical Academy-Naval Hospital- Varna

Department of Toxicology

*Laboratory of Chemical Toxicological Investigations

SUMMARY:

The acute intoxications with medicines / AIM / take the leading place among the other acute intoxications. A retrospective analysis of acute intoxications with medicines in Varna region for a 15-years period / 1991- 2005 / has been done. It was established that they were the cause of hospitalization of 5018 patients / 39.94%/of the total number 12 565 patients, treated for acute intoxications during the period. 3578 / 71.3% / were women and 1440 / 28.7% / were men. The acute medicamentous were significantly more frequent in women. The proportions women to men were 2.48:1. In most cases these poisonings were in the age group up to 24 years – 2640 patients / 52.61% /. Only 249 / 4.96%/ patients were over 60 years old. The prevailing part of the medicamentous intoxications were with a suicidal purpose- 4609 patients / 91.85%/. Mixed medicamentous intoxications had the highest relative share – 1478 / 29.45%/, followed by benzodiazepine intoxications – 1350 / 26.9%/. The medicamentous intoxications were the cause of 20.24% of the lethality rate of all the acute intoxications.

Key words: acute intoxications, medicines.

INTRODUCTION:

The acute exogenous intoxications are the main cause about the non natural death. They are on the third place as a cause about a hospitalization. The acute medicamentous intoxications are on the first place as a cause about a hospitalization in the specialized Toxicology wards. In some countries the medicines cause more than one half of the acute poisonings and the intoxications with psychoactive compounds are most frequent. At the same time there is a necessity to report on the changes that take place in the frequency and structure of this pathology.

In this relation we put ourselves a task to study the epidemiology of the medicamentous intoxications in Varna region for the period 1991-2005, to establish the frequency of AIM, their dynamics, distribution according the age and sex, structure and lethality .

MATERIAL AND METHODS:

The objects of investigation are 5018 patients with

acute medicamentous intoxications treated at the Department of Toxicology, Naval Hospital- Varna. The study is retrospective and includes a 15-years period / 1991-2005 /. The hospital case files, personal medical ambulatory cards were analyzed ad well as the forensic medicine protocols of the deceased patients. The AIM were divided into 9 groups according to the 'etiology: AIM caused by benzodiazepines, hypnotics, neuroleptics, antidepressants, cardio circulatory medicines, non steroid anti inflammatory medicines /NSAI /, other medicaments / antibiotics, hormones, etc. /, mixed medicamentous intoxications. We formed a separate group of mixed medicamentous and alcohol poisonings.

RESULTS AND DISCUSSION:

During the discussed period /1991-2005 / 12565 patients with acute intoxications were admitted at the Department of Toxicology, Naval Hospital-Varna. In 5018 cases the cause of hospitalization was acute medicamentous intoxication. The frequency of the medicamentous intoxications was 39.94% of all the acute intoxications, thus keeping the leading place as a cause of hospitalization. We have registered a significant dynamics of the frequency of medicamentous intoxications during the years of this period. A stable tendency was outlined towards reduction of the absolute number of the AIM as well as a reduction of their relative share of all the acute intoxications. The relative share of AIM was highest during the first years of the period when about one half of the hospitalized patients were with medicines. The relative share of AIM was lowest at the end of the period. In 2005 it was 25.48%.

The prevailing part of AIM were made with a suicidal purpose- 4609 patients / 91.85% /.

Medicamentous intoxications were more frequent in women – 3578 / 71.3% / than in men – 1440 / 28.7%/. The proportions women to men were 2.48:1. This high frequency of AIM in female sex makes an exception from the general tendency in acute intoxications to an equal distribution between the male and female sex.

The prevailing part of the patients with AIM was young people in active age. / table 1/.

Table 1. Age distribution.

Age / in years /	number of the patients	percentage
up to 24 years	2640	52.61%
25-44 years	1719	34.26%
45-60 years	410	8.17%
over 60 years	249	4.96%
total number	5018	100%

We established that more than one half of the patients are people in young age – up to 24 years. With the advancing of age the relative part of the AIM was reduced significantly. The very high frequency of AIM in young people supposed that the clinical course should be lighter and the clinical outcome –more favorable as usually the premorbid health condition had been good. With the advancing of the age the frequency of serious chronic co morbidity was growing too and this fact influenced the clinical course and outcome of the intoxication.

Mixed medicamentous intoxications had the highest relative share of all the AIM – 19.45%, followed by benzodiazepine intoxications – 26.9% / table 2 /. Benzodiazepine poisonings were 10.74% of all intoxications. Their real frequency was much higher because benzodiazepines participate in about one half of the mixed medicine intoxications and mixed intoxications with alcohol and medicines. There were medicamentous poisonings whose frequency did not change significantly during the years of the studied period: neuroleptics, antidepressants, non steroid anti inflammatory / NSAID/, medicines, medicines with cardiovascular activity. The dynamics of the frequency of benzodiazepine and hypnotic intoxications was significant. We established a constant tendency to a reduction of their absolute number, which was found 4 times less at the end of the period in comparison with the first years. We consider that the main reason for this phenomenon was the restriction of the free sells and the control on the prescriptions of benzodiazepines and hypnotics.

Table 2. Etiology of acute intoxications with medicines

medicine	number of the patients	percentage
Benzodiazepines	1350	26.9%
Hypnotics	276	5.5%
Antidepressants	108	2.16%
Neuroleptics	302	6.02%
Cardio circulatory medicines	341	6.79%
NSAI	162	3.23%
Other medicines	350	6.98%
Mixed medicines	1478	29.45%
Medicines + ethanol	651	12.97%
Total number	5018	100%

The medicamentous intoxications take the leading place as a cause of hospitalization, but the relative part of the lethal cases from these intoxications is not great. 33 cases / 0.66% / ended lethally. The total lethality from acute intoxications according to our data during the studied period was 1.3 % of all the cases. The acute intoxications with medicines caused 20.24% of the total lethality from acute intoxications and take the third place after the pesticide poisonings and alcohol intoxications.

CONCLUSION:

The frequency of the acute medicamentous intoxications in Varna region during the period 1991-2005 was 39.94%. AIM were the leading cause of hospitalization. They were more frequent in women than in men. The proportions women to men were 2.48:1. The main reason about these intoxications was a suicidal attempt. The prevailing part of the patients with these intoxications was people in young and active age. The lethality from acute medicamentous intoxication was not very high. During this period it was 0.66%.

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Address for correspondence:

Dr. Petko Marinov
Department of Toxicology, BBAL-Varna
3, Hristo Smirnenski Str., Varna, Bulgaria
Phone: 00 359 52 387 901; Mobile: 00 359 899 982 700
Fax: 00 359 52 387 917
E-mail: eurohospital.bg@abv.bg