

Abstract

Introduction

Poisoning among children, both accidental and intentional, remain an important medical issue and are a common cause of hospitalisation. The World Health Organization warns that poisoning is the fourth biggest cause of unintentional injury among children worldwide. Statistics from the Toxicological Information Centre of the Institute of Occupational Medicine in Łódź suggest that annually 70,000 children in Poland suffer from acute poisoning.

Aim of the study

The objective of the study was to analyse causes, circumstances and clinical course of hospitalized poisonings of children from Rzeszów and the surrounding area in five-year period.

Material and methods

This study was conducted retrospectively at Regional Hospital No 2 in Rzeszów and included the medical data of children below the age of 18 admitted to the hospital for poisoning over the past five years (2010 – 2014).

Factors such as: the category of substance involved in poisoning, route of exposure, nature of poison exposure and duration of hospitalization were analysed. The analysis also considered the impact of environmental factors such as: place of residence, having siblings and chronic diseases occurrence among poisoned patients.

Results.

Within the period analysed, 903 children were hospitalised as a result of acute poisoning. The patient base comprised of 466 girls and 437 boys between the age of two weeks and 18 years. Most poisoning incidents were unintentional (59,8 %) in nature. The majority of unintentional poisoning was caused by household products (31,3 %), while intentional poisonings were mainly caused by medications (44,6 %). In the analysed group, intentional poisoning was significantly more frequent among girls (62,8 %, $p < 0,001$). The main exposure route was oral. The average length of hospital stay was the longest for patients after deliberated drug poisoning (3,6 day).

Conclusions.

1. Among minors, intentional poisoning occurs only in a group of adolescents, while accidental poisoning occurs most frequently in children aged 2 to 6 year of age.
2. Among the youngest children, poisonings occur most commonly in the family home, the incidence of poisoning outside the home increased with the age of the patients.
3. A beneficial decrease in the number of poisoning, both accidental and intentional, was observed in the analysed time period.
4. There is a marked seasonality in the number of poisonings caused by carbon monoxide – a marked increase in these poisonings is observed in autumn and winter, during the heating season. Strict controls and inspections of domestic heating systems, performed before each heating season, could reduce the amount of carbon monoxide poisoning .
5. The costs of diagnosis and treatment of children hospitalized with poisoning constitute a significant burden for the healthcare budget.

Key words: children, poisoning, epidemiology