Presentations of patients of poisoning and predictors of poisoning-related fatality: Findings from a hospital-based prospective study

林宏榮

Lee HL;Lin HJ;Yeh STY;Chi CH;Guo HR

摘要
Abstract

Background

Poisoning is a significant public health problem worldwide and is one of the most common reasons for visiting emergency departments (EDs), but factors that help to predict overall poisoning-related fatality have rarely been elucidated. Using 1512 subjects from a hospital-based study, we sought to describe the demographic and clinical characteristics of poisoning patients and to identify predictors for poisoning-related fatality.Methods

Between January 2001 and December 2002 we prospectively recruited poisoning patients through the EDs of two medical centers in southwest Taiwan. Interviews were conducted with patients within 24 hours after admission to collect relevant information. We made comparisons between survival and fatality cases, and used logistic regressions to identify predictors of fatality.Results

A total of 1512 poisoning cases were recorded at the EDs during the study period, corresponding to an average of 4.2 poisonings per 1000 ED visits. These cases involved 828 women and 684 men with a mean age of 38.8 years, although most patients were between 19 and 50 years old (66.8%), and 29.4% were 19 to 30 years. Drugs were the dominant poisoning agents involved (49.9%), followed by pesticides (14.5%). Of the 1512 patients, 63 fatalities (4.2%) occurred. Paraquat exposure was associated with an extremely high fatality rate (72.1%). The significant predictors for fatality included age over 61 years, insufficient respiration, shock status, abnormal heart rate, abnormal body temperature, suicidal intent and paraquat exposure.Conclusion

In addition to well-recognized risk factors for fatality in clinical settings, such as old age and abnormal vital signs, we found that suicidal intent and ingestion of paraquat were significant predictors of poisoning-related fatality. Identification of these predictors may help risk stratification and the development of preventive interventions.