Characteristics of Acute Poisoning in Emergency Departments: Multicenter Study in Korea

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Abstract: Background: Acute poisoning is the common cause of morbidity and mortality. Characteristics of acute poisoning differ between countries. While other countries operate the database system for poisoning, Korea has not collected the database for acute poisoning. Distribution of incidence of acute poisoning depending on the types of materials have also not studied in Korea. Our aims are to evaluate the etiologic and demographic characteristics of acute poisoning cases and to obtain up-to-date information on acute poisonings. Method: We retrospectively recorded cases of acute poisoning from eight emergency departments of second level or university hospitals from different cities in Gyeonggi province in Korea from April 2006 and March 2015. The distributions of incidence of acute poisoning depending on the types of materials are mapped by geographic information system. Result: A total of 3,449 poisoned cases were analyzed. Mean estimated age of patients was 39.56 ± 22.40 years. Mean male to female ratio of patients was 1:1.4. Mean proportion of intentional poisoning was 57.9%. Common materials are benzodiazepine (16.6%), carbon monoxide (10.5%), pesticide (10.5%) and zolpidem (10.5%) Common route of exposure is ingestion (10.5%) and followed by inhalation (10.5%). Common treatment methods are gastric lavage (10.5%) and activated charcoal (10.5%). Most cases had uneventful recovery; 10.5%0 were treated as outpatients and 10.5%1 of the poisoning resulted in death in ER. Conclusion: Even though the cases enrolled in our study is not the overall cases of acute poisoning in Korea, our study could be the basis of countermeasures for analysis and prevention of acute poisoning in Korea.

Keywords: acute poisoning, emergency department, epidemiology, Korea

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