PESTICIDE POISONING IN KOREA

Hyung-Keun Roh.
Gachon University Hospital, Incheon, Korea

Introduction: In order to evaluate the epidemiologic status of pesticide poisoning in Korea, research on the actual state of acute pesticide poisoning was prospectively conducted through 38 large hospitals nationwide from August 2005 to July 2006.

Discussion and conclusions: In this study, the median age was 53 years old and 61% occurred in men. Children were few and the patients younger than 20 years were almost teenagers with the median age of 15. Most (90.1%) of pesticide poisoning were intentional. Exposures occurred at own residence in 88.7% of cases and only 3.0% occurred during agricultural work or spraying of pesticides. Oral ingestion was the route of exposure in 97.2% of cases, followed in frequency by inhalation and skin/mucous membrane routes. While the monthly incidence of acute pesticide poisoning was high in August, September and October, the incidence was relatively lower in December, January and February. This result suggests that many pesticide poisoning occurred during the farming season because the proportion of agricultural workers was higher in patients poisoned with pesticides than in the other patients. Of the 1,610 pesticide exposures, the most common pesticide was paraquat (35.0%), followed by organophosphates (15.7%), glyphosate (12.8%) and pyrethroids (8.5%). In addition a combination of organophosphates and pyrethroids accounted for 4.7%, carbamates 4.4%, glufosinate 2.6% and organochlorine 2.6%. Overall fatality rate of acute pesticide poisoning in Korea was 21.4%. Paraquat (73.5%) was the most frequent cause of pesticide fatalities, followed by organochlorine (23.7%), carbamates (19.7%), glufosinate (10.3%) and organophosphates (9.0%).