
Children's Environmental Health Research Findings
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Topic: Conjunctivitis following insecticide use

Title: Post-earthquake outbreak of insecticide-associated conjunctivitis in a primary school of Lixian district, China: An epidemiological investigation.

Conclusion: Non-standard operating procedures in pest control can lead to disease incidents

Authors: Xiong HY, Lin H, Xvi H, Shi CM, Xie HP, Ren XJ, Huang GR, Wang AP, Cui ZH, Cheng JA, Yi L, Wu YZ, Zhao YP, Xu B, Zu CZ, Zhang Y, Xu RF, Bian YQ, Ma XY, Zhang L, Ren Q, Cheng LQ.

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Abstract: OBJECTIVES: To describe the time course and characteristics of an insecticide-associated incident and highlight potential risks from similar outbreaks that may occur in other areas to enhance the preparedness of emergency physicians and other healthcare providers to deal with the sequelae of these events.

STUDY DESIGN: Outbreak investigation

METHODS: From 5 to 8 August 2008, an outbreak investigation was carried out among the affected primary school located in the refugee camp area of Lixian district, Sichuan, China. Affected pupils, parents, teachers and doctors working in the local medical stations were visited. Clinical checking, clinical treatment, epidemiological investigation and environmental investigation were undertaken.

RESULTS: In total, 138 individuals were diagnosed with acute conjunctivitis, characterized by inflammation of the conjunctiva and intense ocular symptoms such as redness, itching and mucus discharge. According to the results, all risk factors (i.e. drinking water, indoor air and the materials used in camp classrooms) were excluded except insecticide exposure. The characteristics of symptoms, distribution of cases and records of irregular insecticide spraying support the assumption that the conjunctivitis outbreak was associated with synthetic pyrethroid alphacypermethrin exposure.

CONCLUSION: The results suggest that non-standard operating procedures in pest control could lead to disease incidents. Medical rescue teams should receive training and education in preventive techniques.

Policy Implications: The conjunctivitis outbreak was associated with insecticide exposure. Medical rescue teams should receive training and education in preventive techniques.

Keywords: earthquake, insecticide