

Poster Abstracts

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OCCUPATIONAL CHEMICAL BURNS IN THE EMERGENCY DEPARTMENT

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Objectives: Chemical burns caused by exposure to acid, alkali, or organic compounds mostly occur in workplaces. However, the characteristics of occupational chemical burns were rarely reported. We conducted a study to investigate the characteristics of occupational chemical burns in the emergency department.

Methods: We identified burned patients visiting the emergency department of a medical center between January 1, 2014 and December 31, 2014. Patients with the diagnosis of occupational chemical burns were enrolled. By reviewing the medical records, we collected the epidemiologic characteristics, including age, sex, and occupation. We also recorded the kind of chemical substance, the anatomical site, the body surface involved, and the depth of the burn. The operations, hospitalizations and mortality due to burns were also reported.

Results: A total of 90 cases of occupational chemical burns were identified (21% of the burned patients). The mean age was 34.4 years, and 82.2% were male. With regard to the kind of chemical substances, most were acids (45.3%), followed by alkali (32%) and organic compounds (14.7%). Eye was the most commonly injured body part (54.4%), followed by the upper extremities (31.1%). Manufacturing was the most common industry, accounting for 89.7% of occupational chemical burns. The involved body surface areas of the burn were less than 5% in all patients. Most patients were treated and released (89%). None of the patients received operations. No mortality was identified.

Conclusion: Occupational chemical burn is an important issue in workplaces. The young and male were vulnerable to occupational chemical burns, with eye as the most frequently injured body part. These findings may serve as important references in formulating preventive strategies for occupational chemical burns in Taiwan.