

Fatal Dermal Absorption of Organophosphate Insecticide

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Abstract:

Organophosphate compounds are one of the leading causes of death due to poisoning worldwide due to its easy accessibility as insecticides and pesticides. 95% of pesticide poisoning occurs in developing countries especially in Asia Pacific region. It is one of the most commonly used suicidal poisons because of easy accessibility in countries like India. India being the country of agriculture as a main occupation, the pesticides are easily accessible. Organophosphorus toxicity can occur due to household pesticides or due to occupational exposure commonly. Though rare the accidental poisoning can occur in people working in pesticide industry, farmers and sometimes in common people. The organophosphorus compound is absorbed by all routes and cause fatality if untreated using appropriate antidote. Suicidal poisoning will be usually by ingestion whereas accidental poisoning will be either inhalational or dermal. The homicidal poisoning cases too are reported in the literature by using organophosphorus compounds. Unknowingly people would become the victims of these chemicals. Dermal absorption of these compounds is common but fatality due to it is very rare. Acute poisoning is common after oral, respiratory or dermal exposure by low volatility or high volatility pesticides. We present an accidental fatal case of organophosphorous poisoning wherein the mode of entry was through dermal absorption.

Key words: Organophosphate compounds; pesticide poisoning; dermal absorption