

A Case of Epoxy Related Hydrocarbon Poisoning

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INTRODUCTION

Epoxy-related hydrocarbon poisoning has been documented in several case reports, highlighting the occupational risks associated with epoxy resin exposure. Xylene is commonly used as a solvent or thinner in epoxy formulations to enhance flow and adhesion.



CASE DESCRIPTION

Case 1: A 31-year-old previously healthy male presented to the emergency department following a syncopal episode lasting approximately 10 minutes. On arrival, he was drowsy but responsive to simple commands, with full neurological recovery shortly thereafter. The patient reported experiencing dizziness and diaphoresis prior to the episode, which was precipitated by exposure to a strong, paint-like odor. Vital signs, systemic examination, electrocardiogram (ECG), chest radiograph, bedside echocardiography, and routine blood tests were unremarkable. He was observed and subsequently discharged in stable condition.

Case 2: A 29-year-old previously healthy male presented with giddiness and presyncope, preceded by epigastric discomfort, heartburn, and belching. On examination, he was drowsy but arousable, with initial oxygen saturation of 92%, requiring 10L supplemental oxygen, which was discontinued after one hour. He regained full consciousness within 45 minutes. Clinical assessment, ECG, imaging, echocardiography, and laboratory results were normal. He was admitted for observation and discharged well the following day.

Both incidents occurred during a morning briefing in a well-ventilated workshop recently painted with large area of epoxy resin containing polyamide and xylene. No other workers were affected, and air quality readings were within normal limits. Inhalation of Xylene which is a hydrocarbon was suspected as the causative agent.

DISCUSSION

Epoxy-related hydrocarbon poisoning has been documented in several case reports, highlighting the occupational risks associated with epoxy resin exposure. Xylene is commonly used as a solvent or thinner in epoxy formulations to enhance flow and adhesion.

CONCLUSION

These cases underscore the importance of implementing stringent safety measures, including adequate ventilation and personal protective equipment, when handling epoxy resins and related compounds to mitigate health risks.

