Mass Sociogenic Illness Initially Reported as Carbon Monoxide Poisoning.

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Background

Mass sociogenic illness (MSI) is a rare occurrence involving a constellation of physical signs and symptoms in a group of individuals that are exhibited subconsciously and have no corresponding organic etiology. Objectives: To describe an outbreak of MSI initially attributed to carbon monoxide (CO) poisoning.

Case Reports

While attending a church service, one child fainted, followed by another. This led to multiple individuals reporting a constellation of symptoms. A total of 22 individuals presented to emergency departments (EDs) with neurologic, gastrointestinal, and respiratory complaints. The onset of symptoms followed evacuation in most of these patients. Prehospital personnel obtained carboxyhemoglobin (COHb) levels with a portable oximeter device, identifying levels up to 19% in 6 patients; 17 were taken to a tertiary hospital with a hyperbaric oxygen chamber, and the other 5 to a local ED. All other attendees were asymptomatic. Within the 15-min transport time, all patients were asymptomatic and had normal physical examinations. The mean age of patients was 13 years; 7 were male and 10 were female. Venous blood gas identified normal COHb levels in all patients. Pulse oximetry in the ED was normal. Another handheld oximeter device in the ED found normal COHb and methemoglobin levels.

Conclusion

Varying complaints with onset after removal from the church suggest MSI. The hazardous materials team reproduced the scenario and no toxic gases were detected. Escalation of symptoms and an increased number of persons being affected along with increasing ambulance presence are common inMSI. We suspect that field oximeter readings were either aberrant from an inexperienced operator or were false positive COHb readings. Clinicians should consider MSI after mass outbreaks of illness, particularly with rapid onset, rapid resolution of symptoms, and normal physical examinations and laboratory analyses. However, the diagnosis of MSI should be entertained only after potential toxicologic etiologies have been excluded.