

A Case of Carbon Monoxide Neurotoxicity due to Smoking Hookah

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Introduction:

Carbon monoxide (CO) poisoning is a common issue during the winter, due to the use of heating devices.¹⁻³ A less common etiology that should be considered year round is from smoking Hookah. There is a growing popularity for this social past time especially in the younger population.⁴⁻⁷

We report a case of CO neurotoxicity, which required hyperbaric oxygen therapy (HBO) after smoking Hookah.

Case:

A 34-year-old Hispanic woman with past medical history of Type I Diabetes, latent Tuberculosis and hyperlipidemia was brought into an urban emergency department (ED) after a syncopal episode. The patient drank one beer and was smoking Hookah shortly before the event occurred. Her boyfriend reports that there was some shaking actively shortly after she passed out and afterward she was confused. At triage, the patient was afebrile, normotensive, breathing at 20 breaths per minute, slightly tachycardic at 102 beats per minute and a point of care blood glucose was 373 mg/dl. She was awake, alert, and oriented but complained of headache and chest pain. She had a grossly normal physical exam including no focal deficits, intact finger to nose, and a steady gait.

An EKG was interpreted as sinus rhythm at 95 beats per minute without signs of ischemia. A chest xray was obtained and was unremarkable. Troponin was <0.01 ng/ml. Lactic acid was 3.2 mmol/L. Carboxyhemoglobin was 20.2%.

The patient was already on 100% oxygen via nonrebreather mask and once the CO level was obtained, the local hyperbaric center was contacted and patient transferred.

Discussion:

CO poisoning accounts for over 20,000 ED visits per year and more than 4,000 hospitalizations. With mortality of unintentional poisoning approximately 400 per year.³

There have been cases reported internationally of similar cases to the above but not as many in the United States. A literature review found only one reported case in the US⁸⁻¹⁵.

Conclusion:

CO poisoning should not be forgotten about in syncope or seizure in the setting of possible inhalation exposure. Hookah inhalation may not be the first thing to come to mind, but it should be on one's differential as a reason for CO toxicity.