CORRESPONDENCE

Carbon Monoxide Poisoning Following Use of a Water Pipe/Hookah

Med. prakt. Joscha von Rappard, Dr. med. Melanie Schönerberger,
Dr. med. Lorenz Bärlacher in issue 40/2014

Case Report

We wish to report the case of one of our own patients, in whom hookah smoking had resulted in a carboxyhemoglobin concentration of 18% (detected by pulse oximetry) and consecutive syncope. Interestingly, the rescue team's carbon monoxide alarms went off as soon as they entered the apartment. The fire brigade, which was alerted subsequently, measured a maximum indoor carbon monoxide concentration of 85 ppm in the apartment. Further operations found occasional indoor carbon monoxide concentrations of up to 200 ppm after hookah consumption.

We conclude from these observations that even just dwelling in indoor locations where hookahs are smoked—which is a common occurrence in so called shisha bars—may be sufficient to induce toxicologically relevant carbon monoxide exposure.

The literature on this topic is limited and restricted to case descriptions and small study cohorts (1–3).

Barnett et al. described—in a series of 193 persons who regularly visited shisha bars—significantly higher carbon monoxide concentrations than in a control group (1). A selective literature search did not identify any publications focusing on the subject of carbon monoxide concentrations in such places.

In our view, further systematic studies are urgently required, especially of indoor carbon monoxide concentrations in commercially run shisha bars, because the risk potential in this setting can currently only be speculated on.

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In Reply:

We thank Stangl and Voigt for reminding us of the indoor carbon monoxide concentrations in shisha bars, which are potentially hazardous to health.

It is our view too that the risk potential is substantial, especially for the staff working in such establishments. The symptoms of chronic carbon monoxide poisoning include neurological (polyneuropathy), psychiatric (depression), and gastrointestinal (diarrhea) symptoms (2, 3); the indoor threshold of carbon monoxide concentration that would cause such symptoms is not known and depends on diverse comorbidities and factors of influence.

Because of the known risk potential of carbon monoxide, and the fact that measuring concentrations is fairly simple when using CO alarms, we support the call for further systematic studies and would make a plea for the compulsory fitting of suitable carbon monoxide alarms in shisha bars.

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Conflict of interest statement

The authors of both contributions declare that no conflict of interest exists.