LETTER

# Methanol toxicity outbreak: when fear of COVID-19 goes viral

Dear editor

Methanol ingestion can be a highly lethal poisoning; methanol is metabolised to formaldehyde and formic acid, which are extremely toxic to the central nervous system and the gastrointestinal tract leading to a triad of visual impairment, gastrointestinal symptoms and metabolic acidosis in 6–24 hours.[1]Haemorrhagic and non-haemorrhagic necrosis of basal ganglia, white matter necrosis, and diffuse brain oedema may result in a grave prognosis.[2 3] Although alcohol consumption is illegal in the Islamic Republic of Iran, as well as many other Islamic countries based on religious reasons, there have been sporadic reports of alcohol poisoning, usually in the form of methanol intoxication, mostly found in illegally produced alcoholic beverages. Previous outbreaks of methanol poisoning in Iran in 2007, 2013 and 2018, resulted in substantial morbidity and mortality.[2–4] The most recent outbreak, and perhaps the most significant, coincides with the coronavirus pandemic. Our records show a dramatic increase in cases of methanol intoxication in March and April 2020; as of 16 April 2020, there have been 797 cases of methanol poisoning with 97 deaths in the Fars province, Iran, reported by the Head of Emergency Medical Service of the Fars province.[5] These numbers, from a single province, supersede the previous largest report from the whole country (768 intoxicated subjects) in 2018,[4] and there are similar reports of methanol poisonings in several other centres throughout the country during this period.

Unlike prior outbreaks, the current outbreak of methanol poisoning appears to be due to the belief that consumption of disinfectants and sanitizers, specifically, alcohol, would be beneficial in preventing the COVID-19 infection. This is supported by several cases of methanol poisoning in children resulting from a desperate attempt by parents to prevent or cure the infection. When facing a serious health threat, refractory to the available remedies, such irrational decision making is anticipated, leading to quack cures and dubious prophylactic measures.[6] Appropriate public education is mandatory to fight the misinformation that is being spread through social media about the alcohol and other similar disinfecting agents. This is essential to prevent further morbidity and mortality and also to protect an already exhausted healthcare system from excess burden during a devastating pandemic.

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