Methyl alcohol poisoning causing putamen necrosis

Sir,

I read with great interest the article by Singh et al. published recently in your journal.[1] The authors described a 50-year-old male who presented to the emergency department with chief complaints of giddiness, vomiting, abdominal pain, and blurred vision. On examination, altered sensorium was found, and high anion gap metabolic acidosis was detected in arterial blood gas (ABG) analysis. According to the suggestive history, chief complaints, and the ABG reports, methanol poisoning was considered in the absence of definitive diagnostic facilities. On the follow-up, patient suffered bilateral basal ganglia damage. I would like to address some points in this paper.

Consumption of home-distilled alcohol or country liquor may cause sporadic or mass methanol poisoning, especially in some countries such as Iran and India where poverty-ridden population exists or production and dispersion of illegal, nonstandard or adulterated alcoholic beverages remain widespread.[1,2] Gas-liquid chromatography is not available in most of the poison centers in these countries to determine serum methanol levels, but the combination of metabolic acidosis, visual problems and abdominal pain should always suggest methanol poisoning as was the case in this report.[3] Moreover, putamen necrosis stated in this case can occur in methanol poisoning even with normal ABG analysis.[4] However, one point about this patient is of concern. Was hemodialysis performed in this patient? If not, what was the reason? As you know, hemodialysis for treatment of methanol poisoning appears ideal because methanol, owing to its low molecular weight, is easily dialysed, as are its toxic metabolic products.[5] Furthermore, this method facilitates the correction of metabolic acidosis and other metabolic derangements that may have a role in the neurologic sequelae including putamen necrosis.[6] Pappas and Silverman recommended that hemodialysis be instituted promptly, independent of the initial serum methanol level, if one of the following features is present: (a) Metabolic acidosis, (b) visual disturbance or (c) a history of ingestion of more than the accepted minimum fatal dose (30 ml of absolute methanol).[6] Two of them (a and b) were evident in this case. By the way, a recent study conducted by Hekmat et al. showed that when the antidote fomepizole is not given for any reason, physicians should lower the threshold level for initiating conventional hemodialysis in acute methanol poisoning.[7] Indeed, when aggressive intervention such as hemodialysis is not available or feasible, only new antidote fomepizole would benefit the patients and may withdraw the hemodialysis from treatment strategy. Thank you very much for your interesting case report.

Seyed Mostafa Mirakbari
Department of Forensic Medicine and Toxicology,
Bu Ali Hospital, Qazvin University of Medical Sciences,
Qazvin, Iran

Correspondence:
Dr. Seyed Mostafa Mirakbari,
Department of Forensic Medicine and Toxicology,
Bu Ali Hospital, Qazvin University of Medical Sciences,
Qazvin, 34137 86165, Iran.
E-mail: drmirakbari@yahoo.com

References