

Magnetic resonance imaging and computed tomography scan findings in methanol poisoning

Sir,

I enjoyed reading the article titled "A rare presentation of methanol toxicity" that was published in your journal.^[1] The authors mention that brain lesions typically described in methanol poisoning are in the form of hemorrhagic and non-hemorrhagic necrosis of the basal ganglia and sub-cortical white matter and to their knowledge, lesions in the parietal, temporal, or frontal areas of cerebrum and cerebellar hemispheres have rarely been reported in these patients to date. Therefore, after the presentation of the magnetic resonance imaging (MRI) findings in their patient's brain, the authors state that their case is a rare presentation of infarct in bilateral parasagittal, parieto-occipital and cerebellar regions of the brain. It should be noted that a previously published article,^[2] however, gave information about 42 patients with acute methanol poisoning. Of them, 28 (66.6%) had a total of 55 pathological findings on their brain computed tomography (CT) scans, 5 (17.9%) and 7 (25%) of which were bilateral parasagittal hypodense white matter lesions in the occipital and frontal lobes, respectively. In addition, other

authors had not only previously reported the same lesions as that of the present Gupta's case but also lesions in the frontal and temporal lobes in the brain CT and MRI of the methanol-poisoned patients.^[3-13] This shows that the uni- or bilateral parasagittal, parietal, frontal, temporal, occipital, and cerebellar lesions seen on CT scan and MRI of the brain are documented and not rare complications of methanol poisoning although all these lesions may not concomitantly be present in a single case. If the authors had performed a simple search using PubMed, Google Scholar or SCOPUS, they could easily have retrieved the above-mentioned studies. I suggest the authors to perform an accurate search for their review of the literature.

Hossein Sanaei-Zadeh

Emergency Room/Division of Medical Toxicology, Hazrat Ali-Asghar (p) Hospital, Shiraz University of Medical Sciences, Shiraz, Iran

Address for correspondence:

Dr. Hossein Sanaei-Zadeh, Division of Medical Toxicology,
Emergency Room, Hazrat Ali-Asghar (p) Hospital,
Shiraz University of Medical Sciences, Shiraz, Iran.
E-mail: h-sanaiezadeh@tums.ac.ir

References

- Gupta N, Sonambekar AA, Daksh SK, Tomar L. A rare presentation of methanol toxicity. *Ann Indian Acad Neurol* 2013;16:249-51.
- Taheri MS, Moghaddam HH, Moharamzad Y, Dadgari S, Nahvi V. The value of brain CT findings in acute methanol toxicity. *Eur J Radiol* 2010;73:211-4.
- Lin SH, Tseng GF, Liang CC, Hung YC. Methanol intoxication with bilateral putaminal and occipital necrosis. *Tzu Chi Med J* 2010;22:160-3.
- Askar A, Al-Suwaid A. Methanol intoxication with brain hemorrhage: Catastrophic outcome of late presentation. *Saudi J Kidney Dis Transpl* 2007;18:117-22.
- Sefidbakht S, Rasekhi AR, Kamali K, Borhani Haghghi A, Salooti A, Meshksar A, *et al*. Methanol poisoning: Acute MR and CT findings in nine patients. *Neuroradiology* 2007;49:427-35.
- Chen JC, Schneiderman JF, Wortzman G. Methanol poisoning: Bilateral putaminal and cerebellar cortical lesions on CT and MR. *J Comput Assist Tomogr* 1991;15:522-4.
- Gaul HP, Wallace CJ, Auer RN, Fong TC. MR findings in methanol intoxication. *AJNR Am J Neuroradiol* 1995;16:1783-6.
- Rubinstein D, Escott E, Kelly JP. Methanol intoxication with putaminal and white matter necrosis: MR and CT findings. *AJNR Am J Neuroradiol* 1995;16:1492-4.
- Yun CB, Kim MK, Kang SS, Park HM, Jeong HM, Shin DJ. A case of methanol intoxication with multifocal enhancing lesions in brain magnetic resonance imaging. *J Korean Neurol Assoc* 2000;18:330-332. [article in Korean]
- Nagasawa H, Wada M, Koyama S, Kawanami T, Kurita K, Kato T. A case of methanol intoxication with optic neuropathy visualized on STIR sequence of MR images. *Rinsho Shinkeigaku* 2005;45:527-30. [article in Japanese]
- Vyas S, Kaur N, Sharma N, Singh P, Khandelwal N. Methanol poisoning. *Neurol India* 2009;57:835-6.
- Tunçyürek Ö, Tarhan S, Örgüç Ş, Atalar M, Nuri Şener R. Computed tomographic reversal sign in an adult with methanol intoxication. *J Clin Anal Med* 2012;3:359-60.
- Glazer M, Dross P. Necrosis of the putamen caused by methanol intoxication: MR findings. *AJR Am J Roentgenol* 1993;160:1105-6.

Access this article online**Quick Response Code:****Website:**

www.annalsofian.org

DOI:

10.4103/0972-2327.120446