Drug-induced changes in dentate nuclei of cerebellum

Sir,

We read with great interest the article titled "Sequential MR imaging (with diffusion-weighted imaging) changes in metronidazole-induced encephalopathy" by Singh *et al*. in the April–June 2017 issue of the Indian Journal of Radiology and Imaging.[1] The article is highly informative and describes signal changes in splenium and dentate nuclei following metronidazole ingestion. In this article, we describe a few drugs that cause similar signal changes in the cerebellar dentate nuclei [Table 1]:

Thus, we see that the dentate nuclei can be affected by many drugs with nonspecific magnetic resonance imaging findings. Hence, integration of clinical data is crucial for definitive diagnosis.

Table 1: Drugs that cause signal change in dentate nuclei

	Drug	Use	Area of brain affected	T2/FLAIR hyperintense	Resolution upon discontinuation of drug
A[1,2]	Metronidazole	Antibiotic, amebicide, antiprotozoal agent	Dentate nuclei, midbrain, inferior colliculus, dorsal pons and medulla, inferior olivary nucleus, splenium	Yes, shows diffusion restriction	Yes
B[2]	Monohalothane	Fumigative pesticide	Dentate nuclei, periaqueductal region of midbrain, inferior colliculus, splenium, globus pallidus, thalamus, lower cranial nerve nuclei	Yes, no diffusion restriction	Yes
C[3]	Isoniazid	First line antitubercular therapy	Dentate nuclei	Yes, may show diffusion restriction	Yes
D[2,4]	Cycloserine	Second line antitubercular therapy	Dentate nuclei	Yes, shows diffusion restriction	Yes

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Conflicts of interest

There are no conflicts of interest.

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