A 25 years young nonalcoholic gentleman presented two months back with history of liver abscess for which he was managed with aspiration of abscess and was administered injection Ciprofloxacin and metronidazole for 2 weeks followed by tablets which he was taking for 6 weeks. Twenty days back he developed two episodes of generalized tonic clonic seizures followed by prolonged unconsciousness that persisted for around 15 days. His seizures were controlled with phenytoin 300 mg per day. When patient regained consciousness he noticed unsteadiness of gait with marked swaying on either side and scanning speech. He was not able to sit or stand himself unsupported. On examination he had marked cerebellar signs in lower limbs, bilateral gaze evoked nystagmus and scanning type of speech. His blood investigations including complete hemogram, blood sugar, renal function test and liver function tests were normal. He underwent MRI of brain which revealed bilateral symmetrical hyper intensities in flair images involving dentate nucleus of cerebellum and bilateral colliculi. (Figure 1 and 2). MRI DWI images didn’t show restricted diffusion and on CMRI the lesions didn’t enhance (Figure 3 and 4). Repeat MRI brain after eight weeks demonstrated marked resolution of lesions. Chest X-ray (Figure 5) was suggestive of air under right diaphragm due to aspiration of liver abscess. He was diagnosed as a case of metronidazole encephalopathy.

Metronidazole encephalopathy may manifest as encephalopathy, seizure and ataxia. Magnetic resonance changes may be seen in dentate nucleus, inferior colliculus, corpus callosum, pons, medulla, basal ganglia and bilateral cerebral white matter. In some patients clinical presentation may be similar to Wernicke’s encephalopathy. In patients who already carry some risk factors like alcoholism and uremia are more prone to develop metronidazole toxicity. Lesions usually disappear following withdrawal of metronidazole, so early diagnosis and intervention is important.

References


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Received: 02.03.2011; Revised: 20.06.2011; Accepted: 22.07.2011