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ISSN- 2455-0574

**INDEXED JOURNAL****International Journal Of Medical Case Reports****TUMEFACTIVE DEMYELINATION- A LESION MIMICKING INTRACRANIAL TUMOR**

Author

**\*Dr Mohammed Ashfaque<sup>1</sup>, Dr Valinjker S.K**Senior Resident<sup>1</sup>, Associate Professor<sup>2</sup> Grant Govt Medical College And Sir JJ Group Of Hospitals Mumbai

\*Corresponding Author

Dr Mohammed Ashfaque Grant Govt Medical College And Sir JJ Group Of Hospitals Mumbai

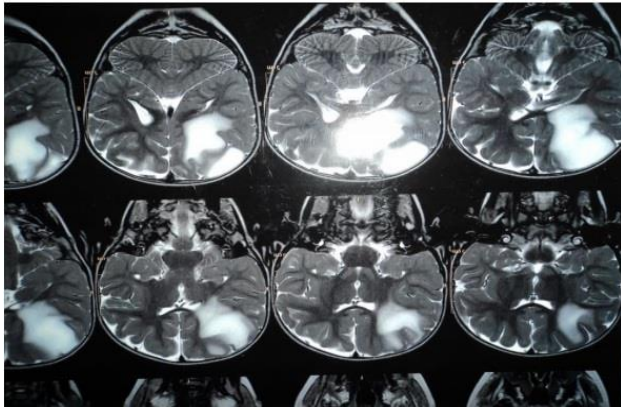
E-mail: [dr.ashfaq.memon@gmail.com](mailto:dr.ashfaq.memon@gmail.com)

A 7 year old female child presented with history of multiple episodes of focal seizures since 2 years . Patient was being treated by antiepileptics but despite being on antiepileptics patient had multiple episodes of breakthrough seizures There was history of 7 episodes of focal seizures in last 6 months. Also there was history of recurrent episodes of headache and vomiting. On examination there was no evidence of any neurocutaneous markers. There was focal deficit

in the form of hemiparesis. There was no history of altered sensorium or altered bowel bladder habit or incontinence. Ophthalmological examination revealed mild pappilloedema . There was no significant family history of seizures in any of the family members. Also there was no history of contact with any patient of tuberculosis. . Routine investigation like CBC, electrolytes, CRP and blood sugar levels were normal. Metabolic workup was also found to be normal.

EEG was done which was normal. An MRI was done which is shown below..

**Fig: Tumefactive Demyelination seen on MRI**



What does MRI show?

- Tumefactive Liquification.

MRI showing well-demarcated white-matter lesions, with high on T2 signal and relatively low T1 signal is characteristic. Contrast enhancement, mostly of the rim-enhancement type, is more common in the tumefactive liquification type than in the standard multiple sclerosis plaque. MR spectroscopy characteristically show reduced NAA without corresponding rise of choline peak relative to creatine peak. Diffusion imaging reveals mildly enhanced apparent diffusion coefficients within tumefactive liquification<sup>1,2</sup>.

What is the Importance of this Image?

Various demyelinating diseases, including Multiple sclerosis, acute disseminated encephalomyelitis (ADEM) and progressive multifocal leucoencephalopathy (PML) may present as tumefactive demyelination on MRI. On imaging, these lesions may show imaging features suggestive of a brain tumor or brain abscess. Also there may be appearance of mass effect on adjacent structure. The importance of identifying tumefactive demyelination is to differentiate it from brain tumor and abscess<sup>3,4</sup>. The differentiation is of critical importance as the treatment is quite different. The identification of these lesion is of paramount importance as to avoid unnecessary and hazardous neurosurgical interventions<sup>5</sup>.

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