

## Residents' Corner

# A rare cause of seizure with benign course in a child

Kaustav Ghosh<sup>1</sup>

<sup>1</sup>Department of Hematology, Nilratan Sircar Medical College and Hospital, Kolkata, West Bengal, India.

### \*Corresponding author:

Kaustav Ghosh,  
Department of Hematology,  
Nilratan Sircar Medical College  
and Hospital, Kolkata, West  
Bengal, India.

ghoshrony94@gmail.com

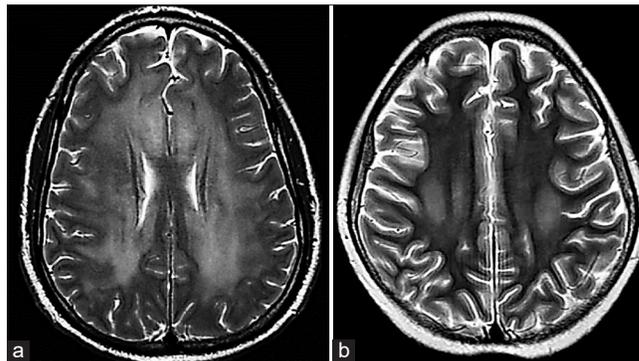
Received: 22 July 2023  
Accepted: 24 July 2023  
Epub Ahead of Print: 04 October 2023  
Published: 28 November 2023

DOI  
10.25259/JHAS\_30\_2023

### Quick Response Code:



A 7-year-old male diagnosed case of B-cell acute lymphoblastic leukemia, intermediate risk group, central nervous system Status 1, received the first dose of methotrexate (2 g/m<sup>2</sup>) as consolidation. Serum methotrexate level at 42 h was <0.1 mmol/L and leucovorin rescue was administered as per protocol. On day 5 of therapy, he developed generalized tonic-clonic seizures without associated with any fever. The patient was started on Inj levetiracetam. His hemogram showed hemoglobin 9.6 g/dL, total leukocyte count 2100/cumm (N35% L60% M9% E5%), and platelets 76,000/cumm. Biochemistry revealed normal results of renal and liver function tests; serum electrolytes were also within normal limits. A computed tomography scan of the brain revealed no abnormality. Magnetic resonance imaging revealed hyperintensities with diffusion restriction in the bilateral deep white matter region [Figure 1a and b]. A diagnosis of methotrexate-induced leukoencephalopathy (LE) was made based on clinical and characteristic radiological features. The patient became symptom-free by 2 days and methotrexate was omitted from further courses of consolidation. Common causes of seizures in a leukemic child include stroke, infections, metabolic abnormalities, or cancer itself. Methotrexate-induced LE should



**Figure 1:** Magnetic resonance imaging (MRI) brain images from a 7-year-old male child suffering from acute lymphoblastic leukemia who presented with new onset seizures while on high dose methotrexate chemotherapy; (a) MRI brain (T2) and (b) MRI brain (T2 fluid-attenuated inversion recovery) showing: Hyperintensities in bilateral deep white matter region.

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be kept in mind in any patient presenting with subacute-onset neurological features 3–11 days after intravenous or intrathecal methotrexate therapy.<sup>[1,2]</sup>

#### **Acknowledgment**

Sincere thanks to my parents Mr. Bholanath Ghosh and Mrs. Sucharita Ghosh.

#### **Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent.

#### **Financial support and sponsorship**

Nil.

#### **Conflicts of interest**

There are no conflicts of interest.

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**How to cite this article:** Ghosh K. A rare cause of seizure with benign course in a child. *J Hematol Allied Sci.* 2023;3:76-7. doi: 10.25259/JHAS\_30\_2023