

A case series of HHV -6 encephalitis with clinic-radiological profile in children at a tertiary care centre

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INTRODUCTION

- HHV 6 infection causes mild febrile illness in immunocompetent children, classically known as roseola infantum. HHV-6 is also commonly associated with febrile seizures in children.
- The neurological manifestations of HHV 6 infection can be varied, ranging from simple febrile seizures to severe forms of encephalitis. Nevertheless, HHV-6 encephalitis is a rare occurrence in immunocompetent children.

OBJECTIVES

To describe the clinico-radiological profile of HHV -6 encephalitis in children at our tertiary care centre.

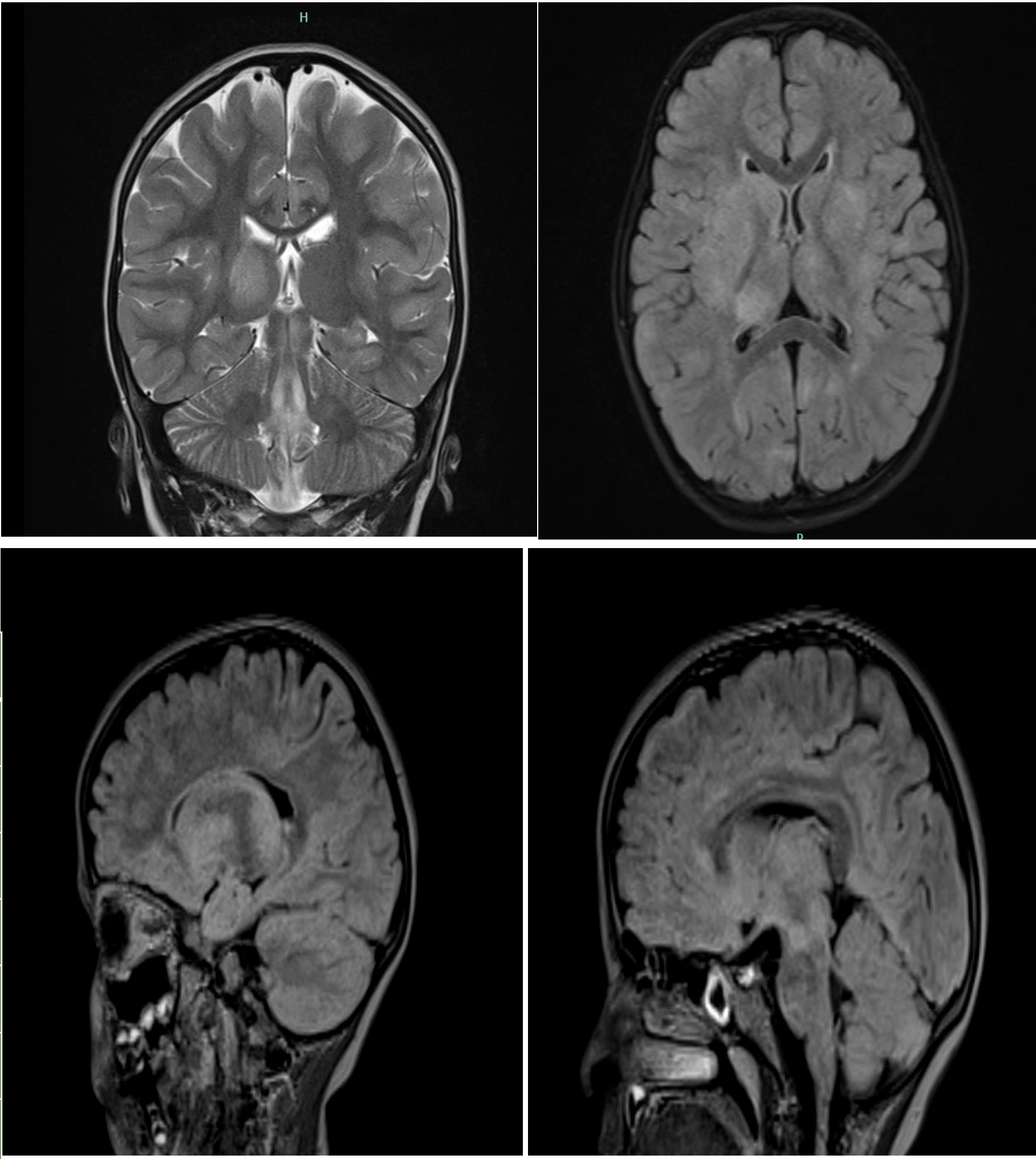
MATERIAL & METHODS

- A retrospective analysis of the clinical and radiological features of children with suspected meningoencephalitis over a 5 year period was done.
- All confirmed cases of HHV 6 encephalitis, as per the results of film array meningoencephlitis panel were reviewed in the electronic medical records.
- The clinical profile along with results of investigations, CSF study and neuroimaging features and the outcome in these children were reviewed and noted.

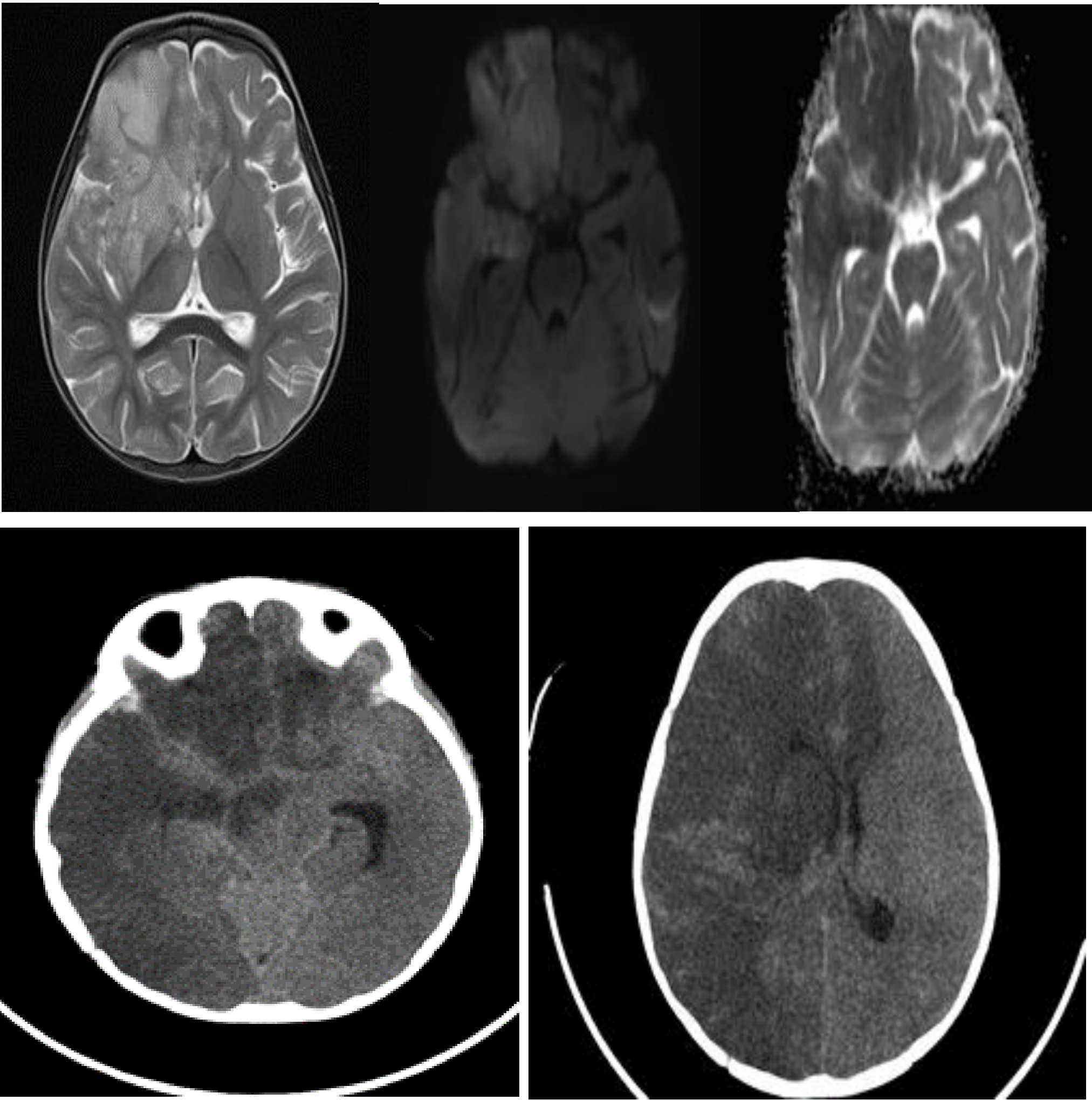
No of HHV – 6 encephalitis	10
Seizures	5/10
Altered sensorium	5/10
Abnormal CSF study	5/10
MRI abnormalities	4/10
Parenchymal abnormalities	3/10
Meningeal enhancement	4/10
Poor outcome	2/10 ( 1- death , 1- sequelae)

RESULTS

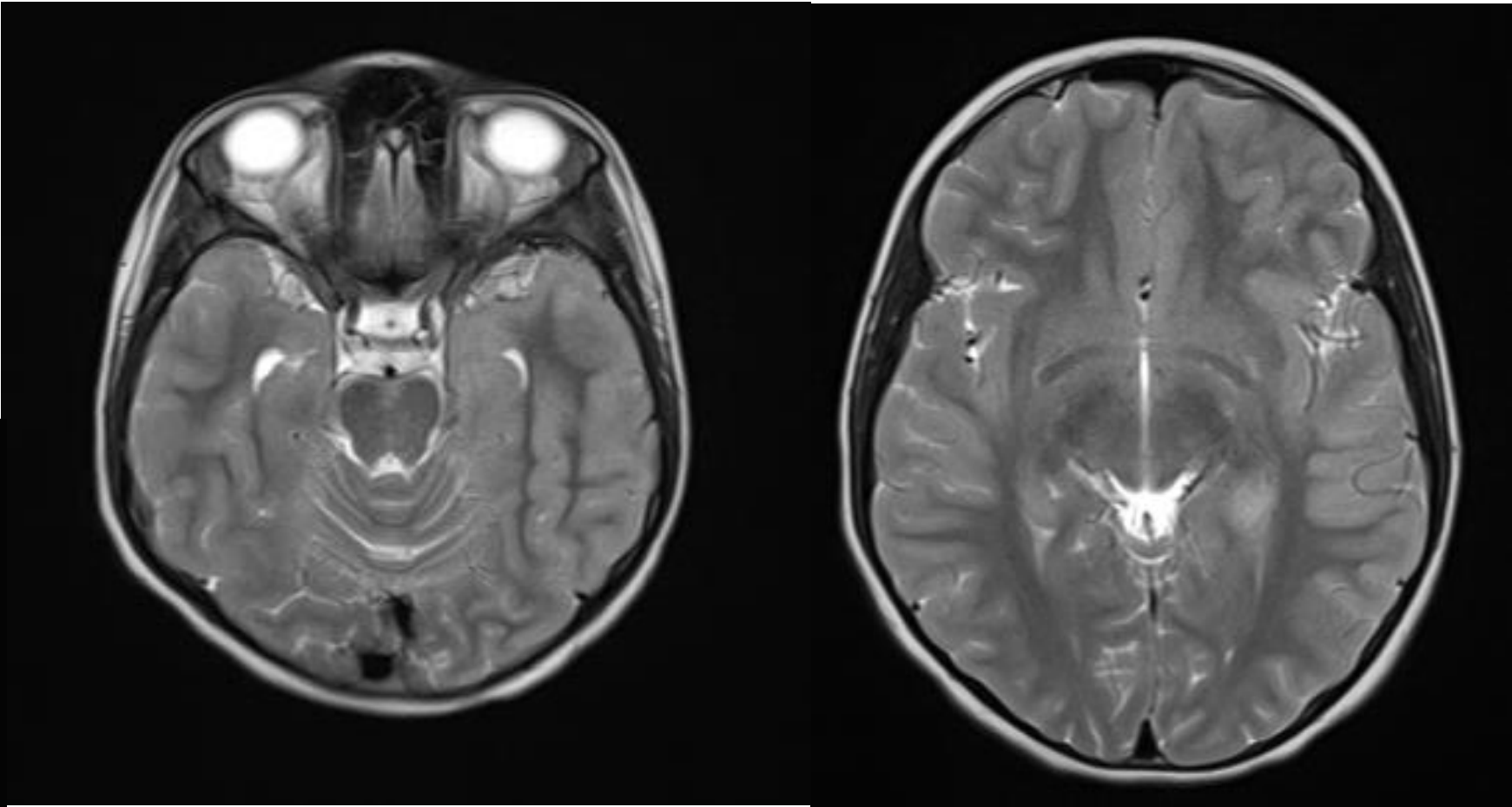
Case 1- A 3 year old child , presented with complaints of fever , headache , vomiting and increased sleepiness. On examination child had altered sensorium with GCS scoring of 11/15, brisk reflexes and extensor plantar. In v/o depressed sensorium and poor GCS child was intubated. MRI brain showed- T2/flair- hyperintense signals in bilateral thalami, basal ganglia, brainstem, cortical, subcortical regions. CSF – HHV 6 +ve .Child developed choreo-athetotic movements and dystonia during the hospital course. On discharge, child had neurological deficits – lower limb spasticity. Cognition was normal .



Case 2- A 1year old developmentally normal child with fever since 14days , vomiting x 3days and seizures since 1 days associated with increased sleepiness and lethargy with h/o focal seizure on the left side. O/E Poor GCS – 9/15, weakness and hypertonia left upper and lower limbs, exaggerated reflexes . Intubated in v/o poor GCS. MRI brain showed – severely edematous right hemisphere with diffusion restriction and midline shift with leptomeningeal enhancement. Child had refractory seizures and worsening of sensorium with deterioration of vitals, and developed features of raised ICT. Inspite of antiedema measures, general condition deteriorated and child succumbed to death.



Case 3- A 7 year old girl presented with complaints of altered behaviour. On examination - GCS was 12/15. No focal neurological deficits. CSF study showed - lymphocytic pleocytosis with normal glucose and protein levels. MRI Brain showed hyperintensities in the left hippocampus and medial temporal lobe. Child improved within 2 days of hospitalisation and recovered completely without any neurological deficits.



CONCLUSIONS

The clinical and radiological manifestations of HHV 6 encephalitis presents a wide spectrum from mild illness to severe neurological deficits and even death. HHV 6 mortality in immunocompetent children is rather rare with very few case reports in the literature. HHV – 6 encephalitis is a diagnostic possibility in any child with acute CNS infection and has a variable prognosis with plausible treatment strategies

REFERENCES

Sevilla-Acosta F, Araya-Amador J, Ulate-Campos A. Human Herpesvirus 6 Associated Encephalitis with Fulminant Brain Edema in a Previously Healthy Child. Cureus. 2020 May 7;12(5):e8018