



2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

## CASE PRESENTATION

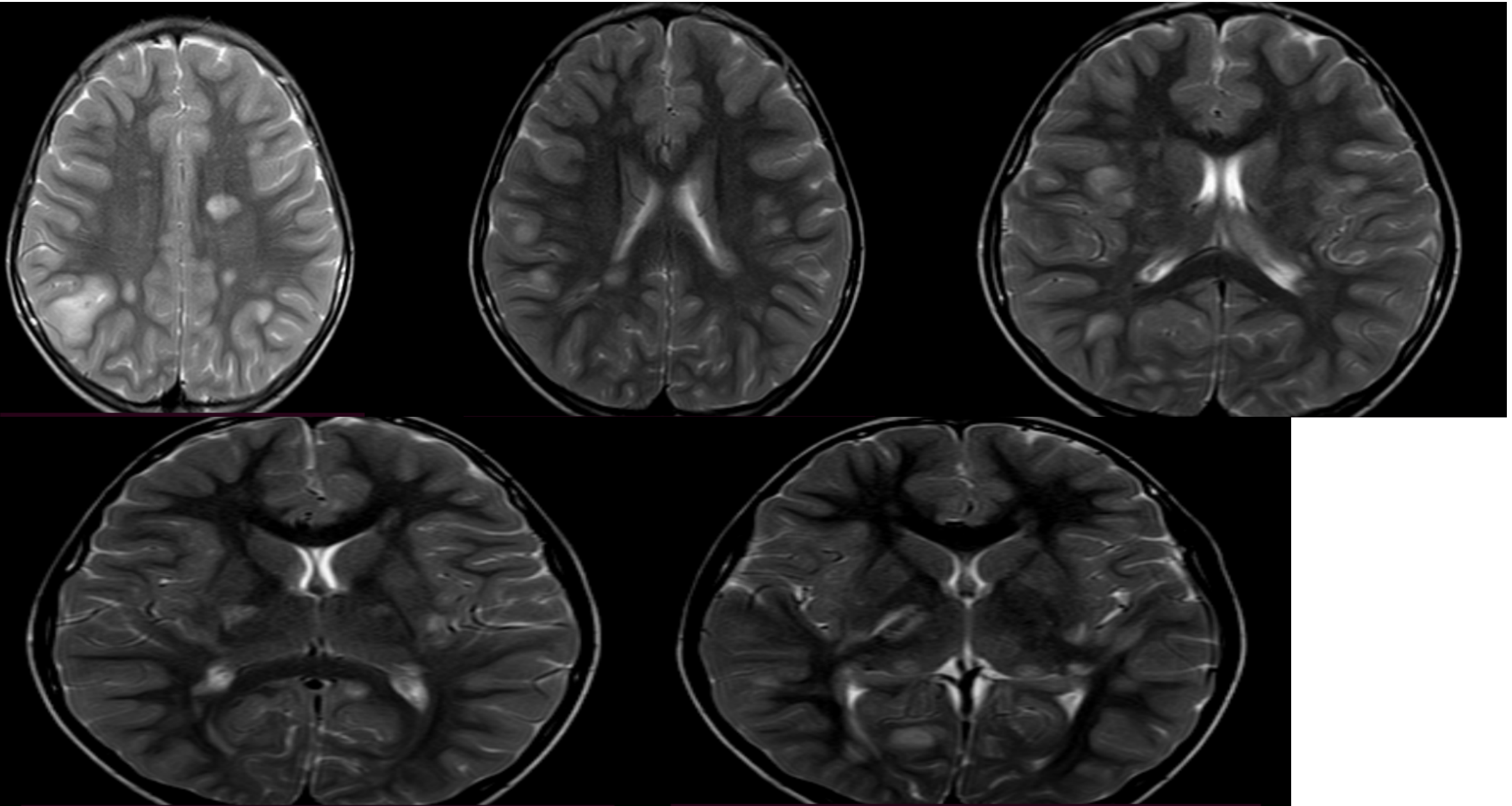
**MENTOR : Dr. Rahul K R, Assistant professor, Dept. of radiodiagnosis**

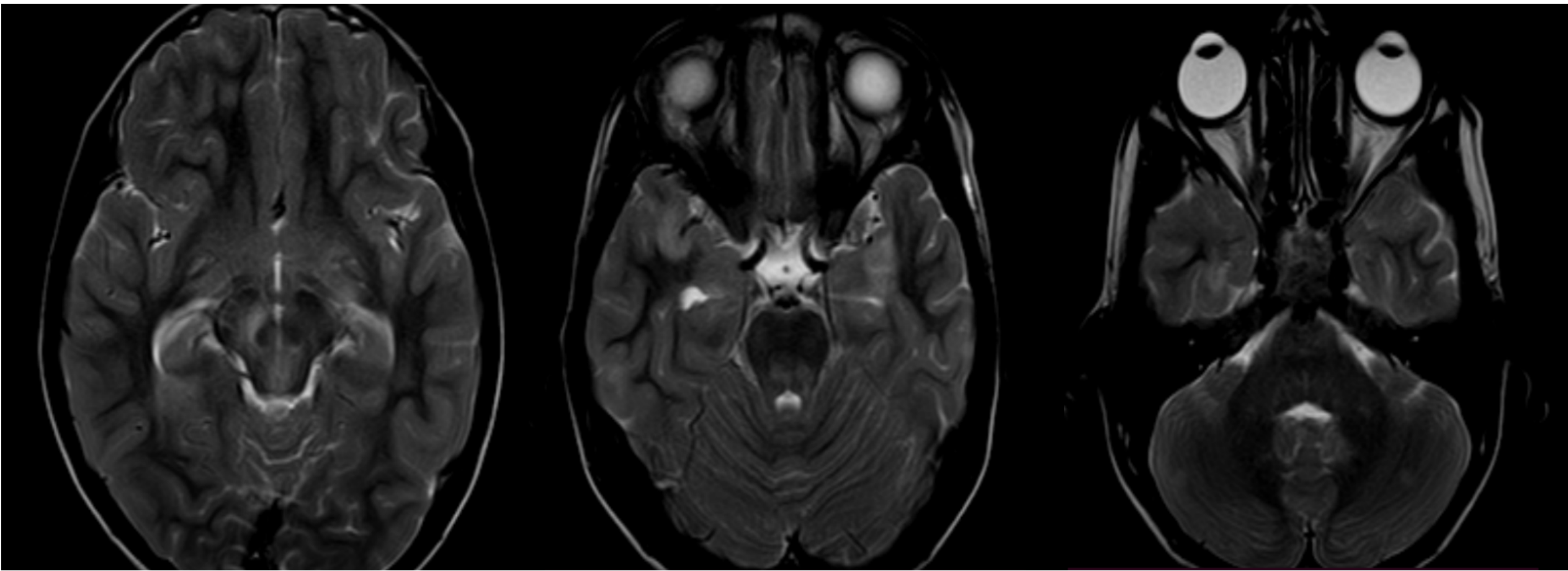
**JJM MEDICAL COLLEGE, DAVANAGERE**

**Presenter: Dr Shreya, PG Resident**

- A 10month old male patient with chief complaints of 1episode of generalized tonicclonic seizures associated with uprolling of bilateral eyes and involuuntary involvement of bilateral upper and lower limbs.
- Fever with chills 2weeks back
- 2episodes of vomiting since 2days
- On examination neck rigidity and Brudzinski sign positive
- TLC-raised(15940)
- **CSF analysis-Protein-120(raised),Glucose-normal.**
- CSF gram stain negative.
- **MOG and NMO antibodies negative.**
- Birth history-normal,No NICU Admission
- Developmental history -normal

T2W

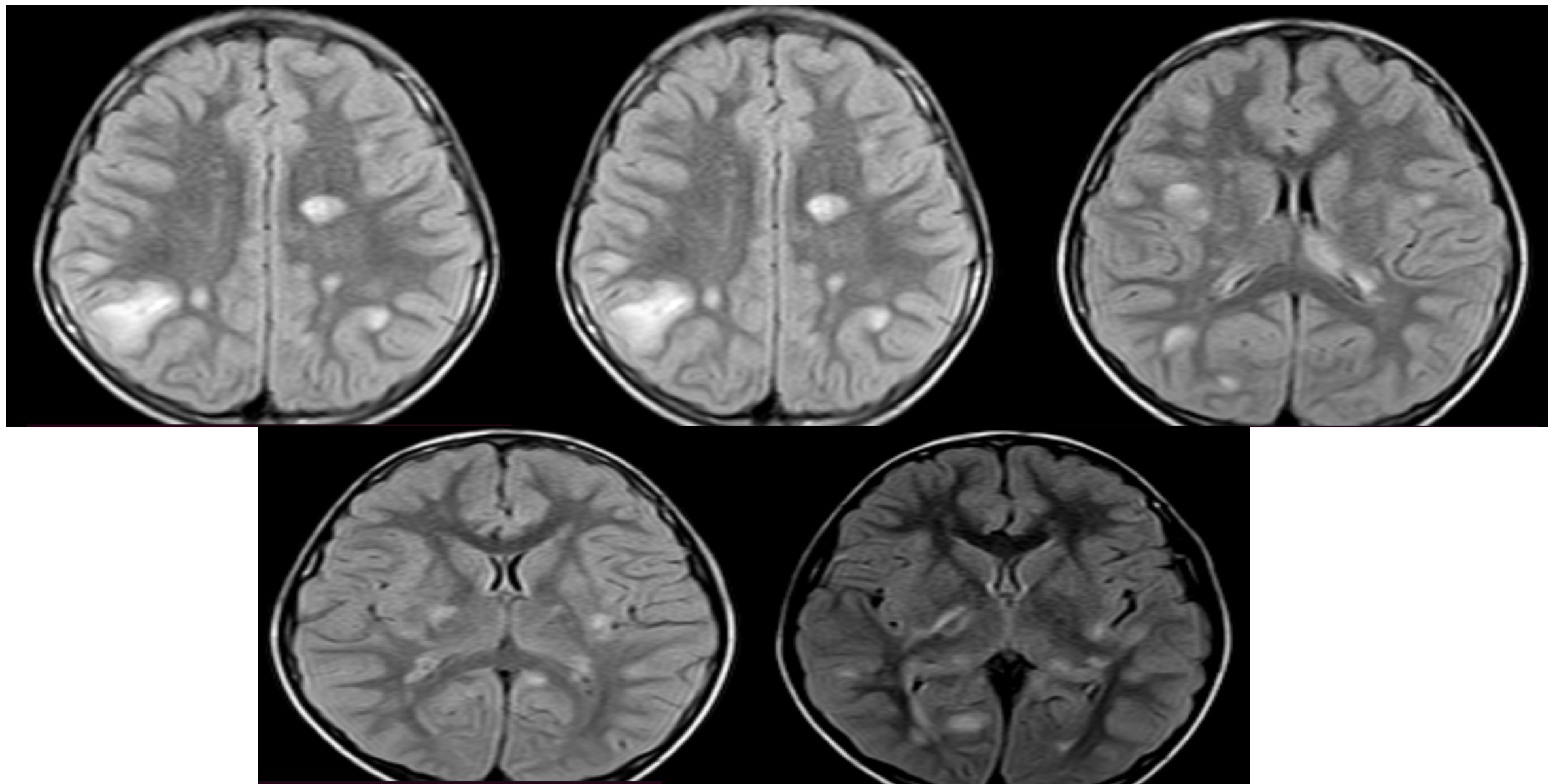


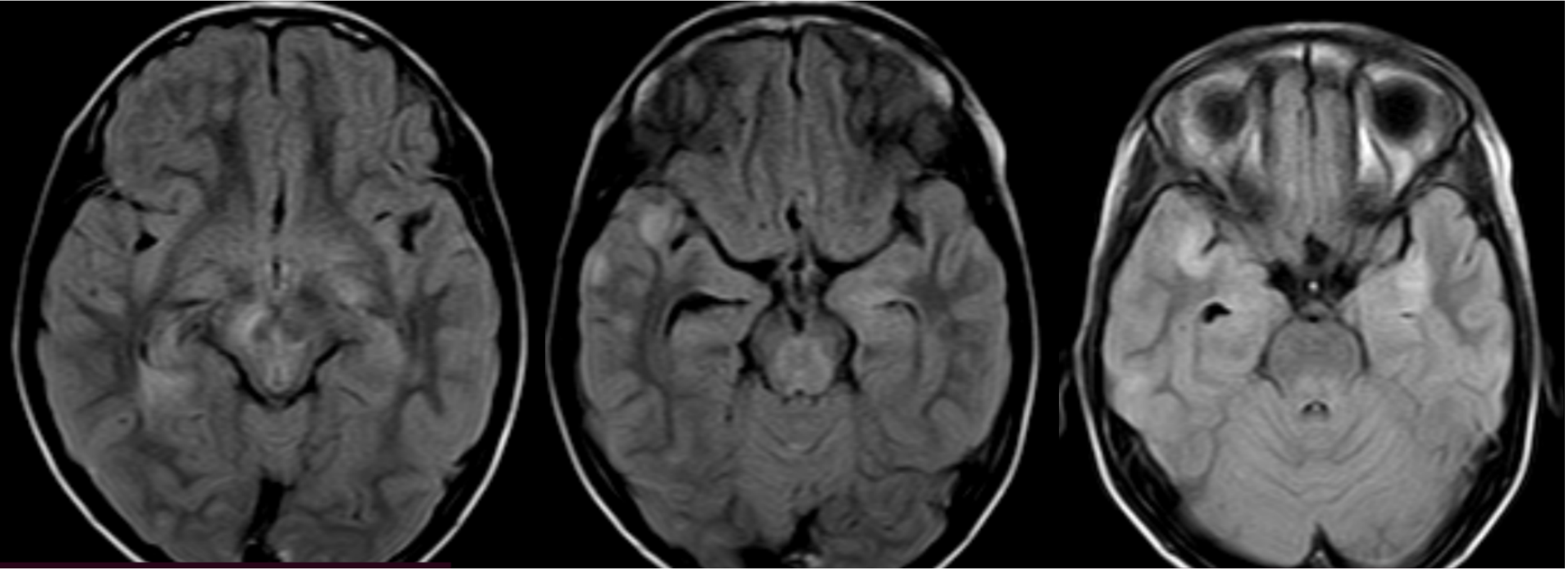


**Multiple variable sized focal areas of T2W hyperintensities noted in subcortical white matter of bilateral cerebral hemispheres, Bilateral centrumsemiovale, bilateral gangliocapsular region, thalami, cerebellar hemispheres, midbrain, pons, medulla**



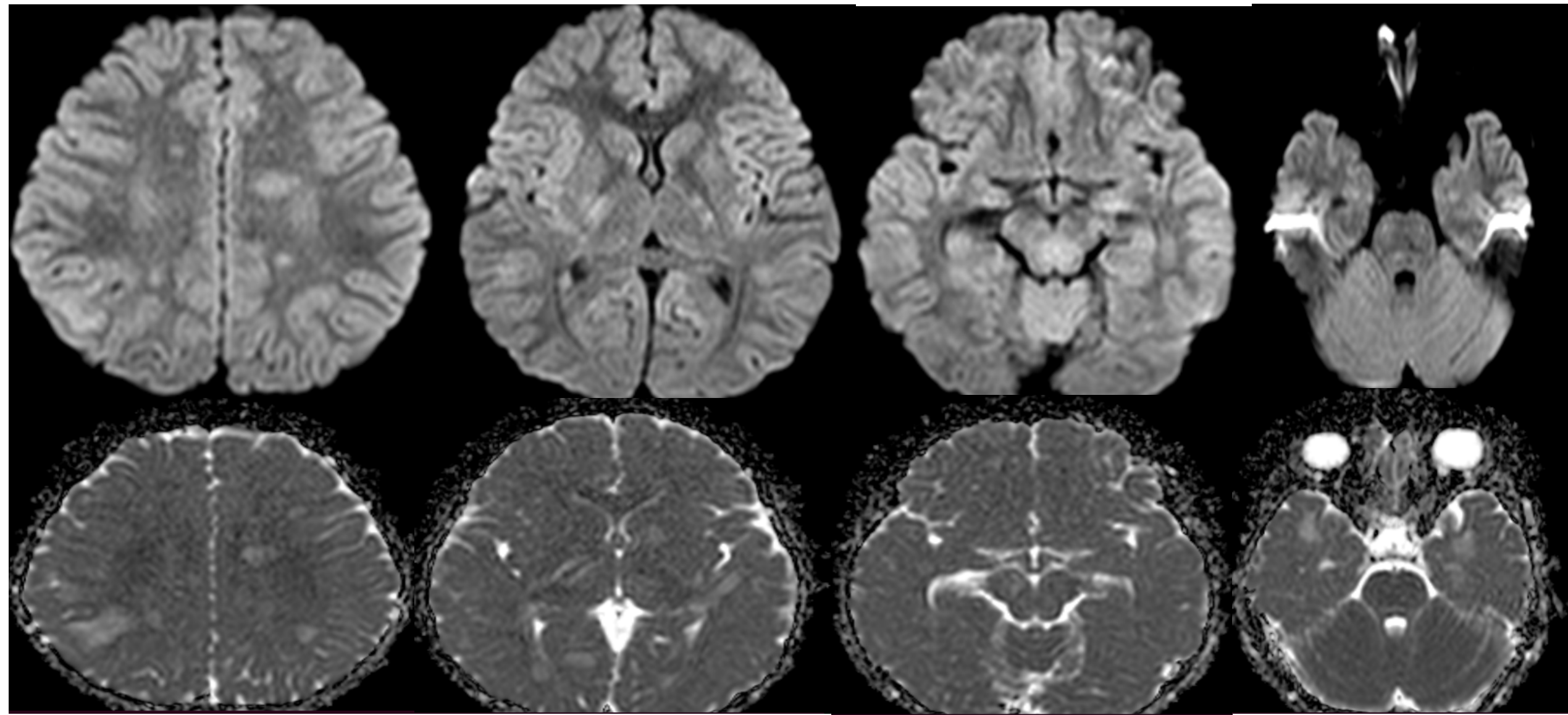
# FLAIR



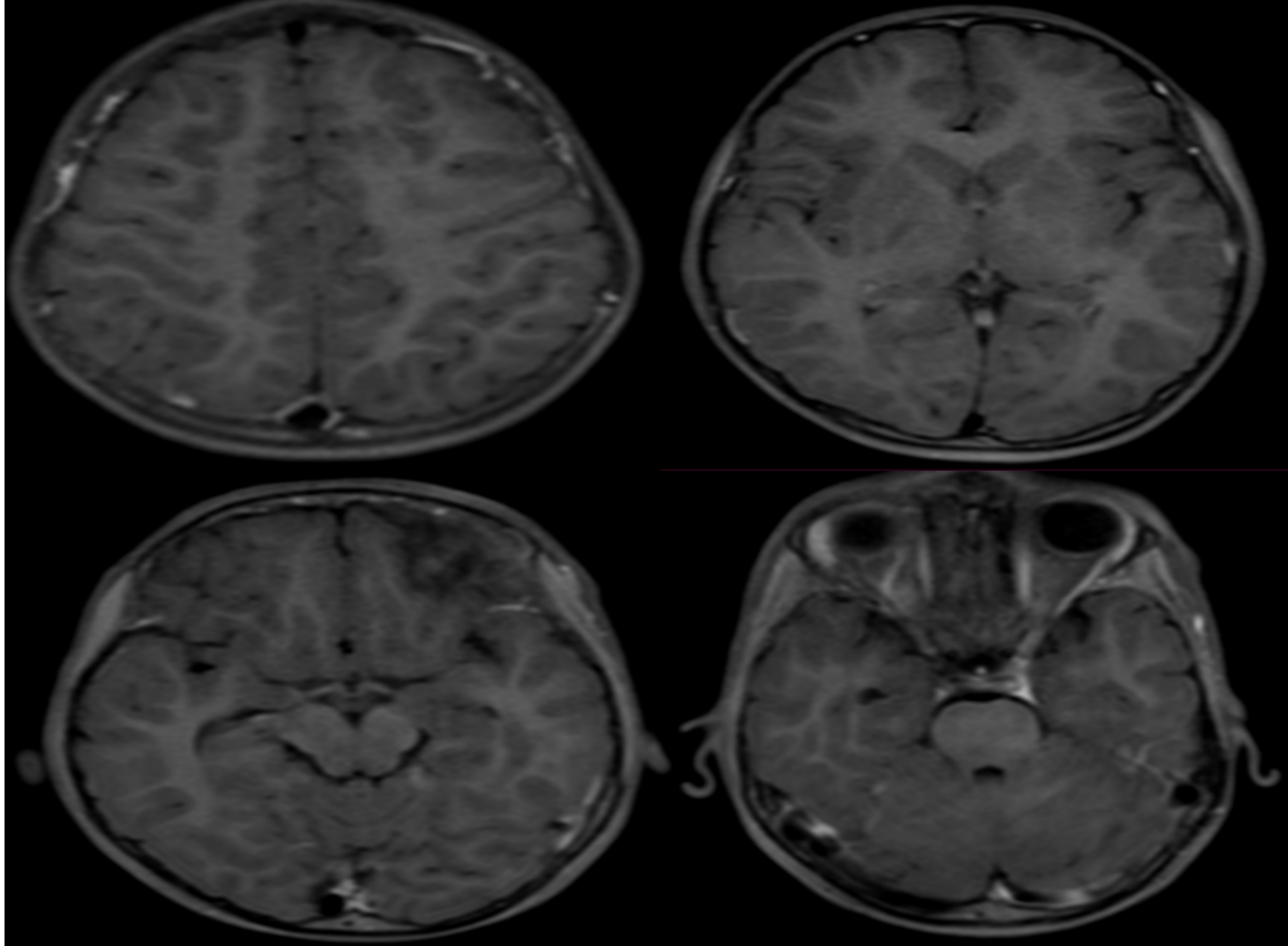


**FLAIR hyperintensities noted in subcortical white matter of bilateral cerebral hemispheres, Bilateral centrum semiovale, bilateral gangliocapsular region, thalami, cerebellar hemispheres, midbrain, pons, medulla**

## DWI-ADC



No areas of true diffusion restriction on DWI-ADC



Post-contrast t1 fat sat-No enhancement





Cervical spinal cord is bulky with multiple focal areas of T2 hyperintensity in the central spinal cord, lower thoracic and conus of spinal cord

## Conclusion:

- Multiple variable-sized focal areas of T2/FLAIR hyperintensities not showing true diffusion restriction noted in subcortical white matter of bilateral cerebral hemispheres, Bilateral centrumsemiovale, bilateral gangliocapsular region, thalami, cerebellar hemispheres, midbrain, pons, medulla.
- Cervical spinal cord is bulky with multiple focal areas of T2 hyperintensity in the central spinal cord, lower thoracic and conus of the spinal cord.

### ➤ **F/S/O Acute Disseminated Encephalomyelitis**

- D'd: Multiple sclerosis

# Callens criteria to distinguish MS from ADEM

<b>Table III. Criteria to distinguish MS from ADEM*</b>
Any 2 of: <ul style="list-style-type: none"><li>• Absence of a diffuse bilateral lesion pattern</li><li>• Presence of black holes</li><li>• Presence of 2 or more periventricular lesions</li></ul>
*Callen, et al. Role of MRI in differentiation of ADEM from MS in children. Neurology 2009;72(11):968-73.



- **Treatment-**

- Inj. Methylprednisolone pulse therapy for 1 week.
- IV Antibiotics.

# FOLLOW UP

Bapuji Educational Association (Baptist)  
BAPUJI CHILD HEALTH INSTITUTE AND RESEARCH CENTRE  
Bapuji OPD Block, Bapuji Hospital Road, DAVANGERE-577004, Karnataka, India

Discharge Summary

AGE: 10 Y  
SEX: M  
CL-102

NSI: NEGATIVE, SCRUB TYPHUS - NEGATIVE

CSF ANALYSIS (18/10/24)  
GLUCOSE: 61  
PROTEIN: 120 INCREASED  
CL-119  
CELL COUNT: 1410  
NL10/90

MR - BRAIN AND SPINE REPORT - MULTIFOCAL PATCHES OF T1 FLAIR HYPERINTENSITIES NOTED IN BOTH SUPRATENTORIAL CEREBRAL HEMISPHERES, BILATERAL FRONTOPARIETAL REGION, BILATERAL BASAL GANGLIA, RIGHT POSTERIOR PARIETAL AND BILATERAL THALAMUS. SO POSTVIRAL INFECTIVE SEQUELAE Demyelination

SPINE - MULTIFOCAL PATCHES OF T2 FLAIR HYPERINTENSITIES NOTED IN CENTRAL REGION C, CERVICAL SPINAL CORD, LOWER THORACIC, CONUS SPINAL CORD WITHOUT POST CONTRAST ENHANCEMENT

Treatment Given:  
TREATMENT GIVEN  
IN: CEFTRIAXONE 1.5 MG 1-6-1X 7 DAYS  
IN: MANNITOL 85ML STAT  
IN: DEXONA 2.5MG 1-6-1 X 2 DAYS  
IN: METHYL PREDNISOLONE 50MG 6-6-1X 5 DAYS  
TAB PARACETAMOL 300MG SOS

Courses of Treatment in Hospital:  
A 10 YEAR OLD MALE CHILD DEVELOPMENTALLY NORMAL WITH NO SIGNIFICANT PAST H/O. BROUGHT WITH ABOVE MENTIONED COMPLAINTS AND ON RECEIVING CHILD WAS DROWSY AND VITAL PARAMETERS WERE STABLE. SE MENINGEAL SIGNS. PRESENT NECK RIGIDITY. PRESENT BRUDZINSKI SIGN POSITIVE. SUSPECTING MENINGITIS. LUMBAR PUNCTURE DONE SHOW RAISED COUNTS (1410), PROTEIN LEVELS AND CHILD SENSORIUM DID NOT IMPROVE. MRS DOK SHOWED ACUTE DISSEMINATED ENCEPHALOMYELITIS. CHILD WAS STARTED ON IV STEROID (METHYL PREDNISOLONE) AND ANTI EDEMA MEASURES. AND IV ANTIBIOTICS. CHILD SENSORIUM IMPROVED AND PLAN WAS TO FURTHER EVALUATE WITH MRI SPINE AND REPO. SHOWED HYPER INTENSE LESIONS PRESENT IN CERVICAL, THORACIC AND LUMBAR REGION. CHILD IS HEMODYNAMICALLY STABLE AND HENCE IS BEING DISCHARGED WITH FOLLOW UP ADVICE

Condition on Discharge:

Patient improved on IV Steroids and antibiotics

THANK YOU