KREP

2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

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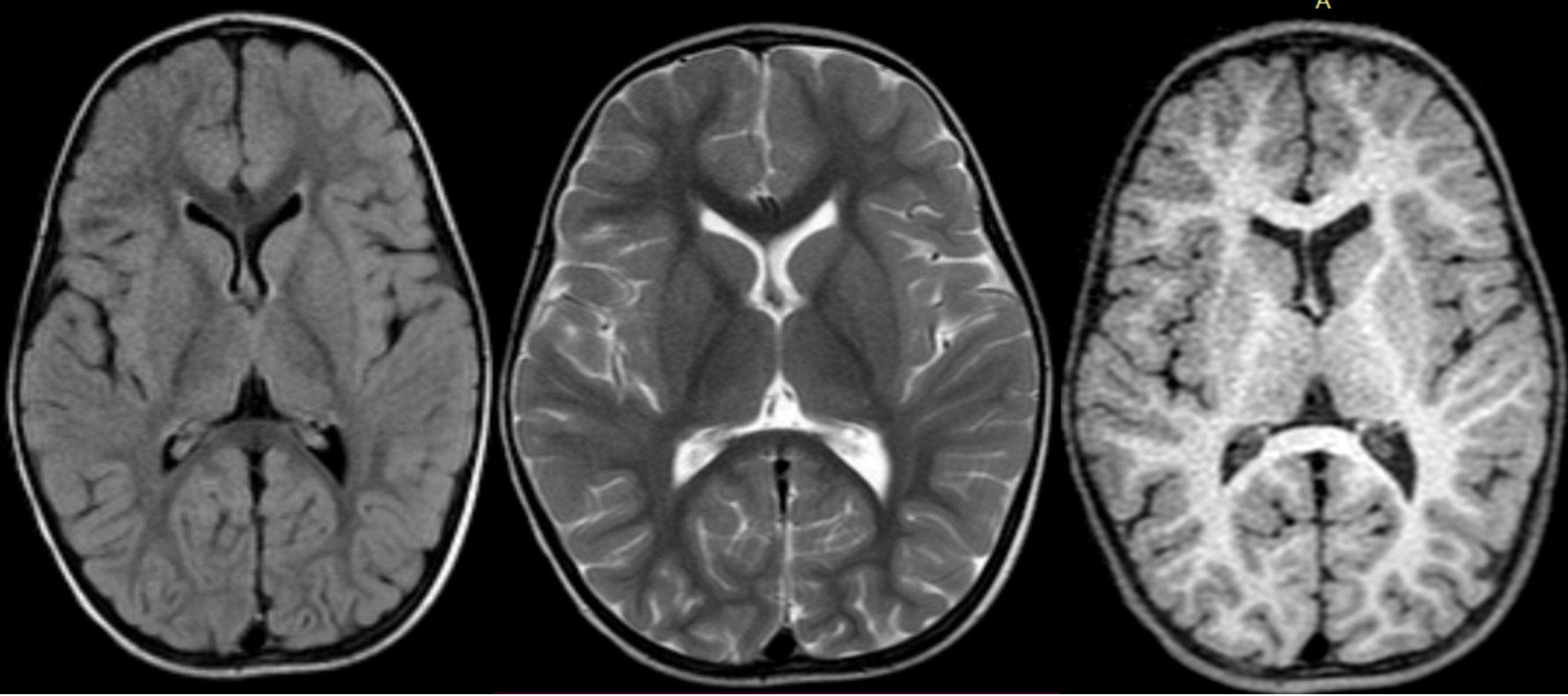
PRESENTER: Dr Vidya, PG Resident

Chief complaints

- 3year old female baby attenders came with the c/o fever since 2 days
- 3-4 episodes GTCS type of seizures since 2 days
- No any similar complaints in the past, not a K/C/O seizure disorder
- Admitted for Acute GE 3 months back
- Birth H/O uneventful (no NICU admission)
- Growth and developmental H/O appropriate for age
- Blood Inv: TLC : 10730 (normal)
- CSF analysis: Normal
- GCS: 7/15
- Requested CEMRI BRAIN (? Menigitis)



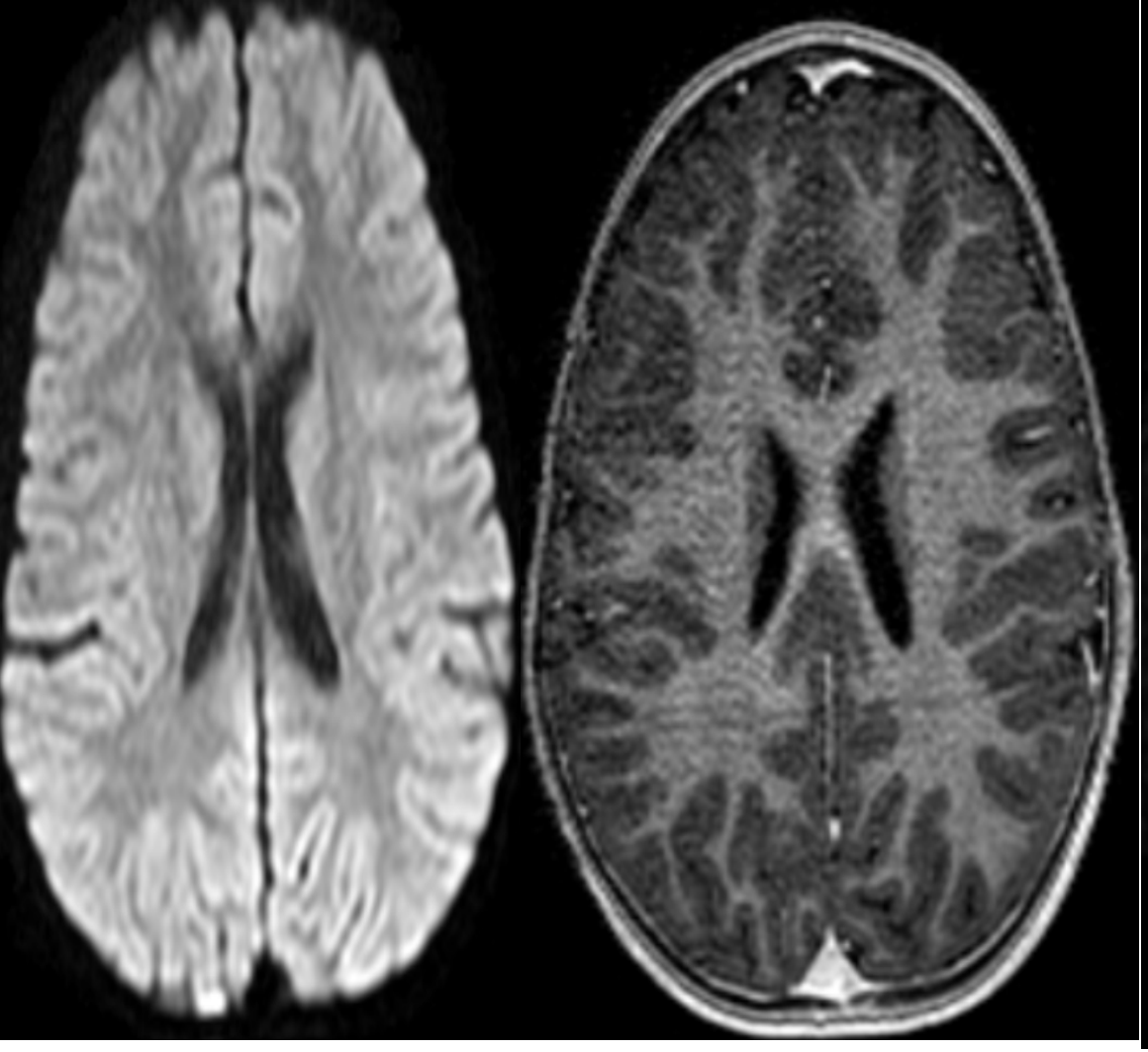
FLAIR
AXIAL

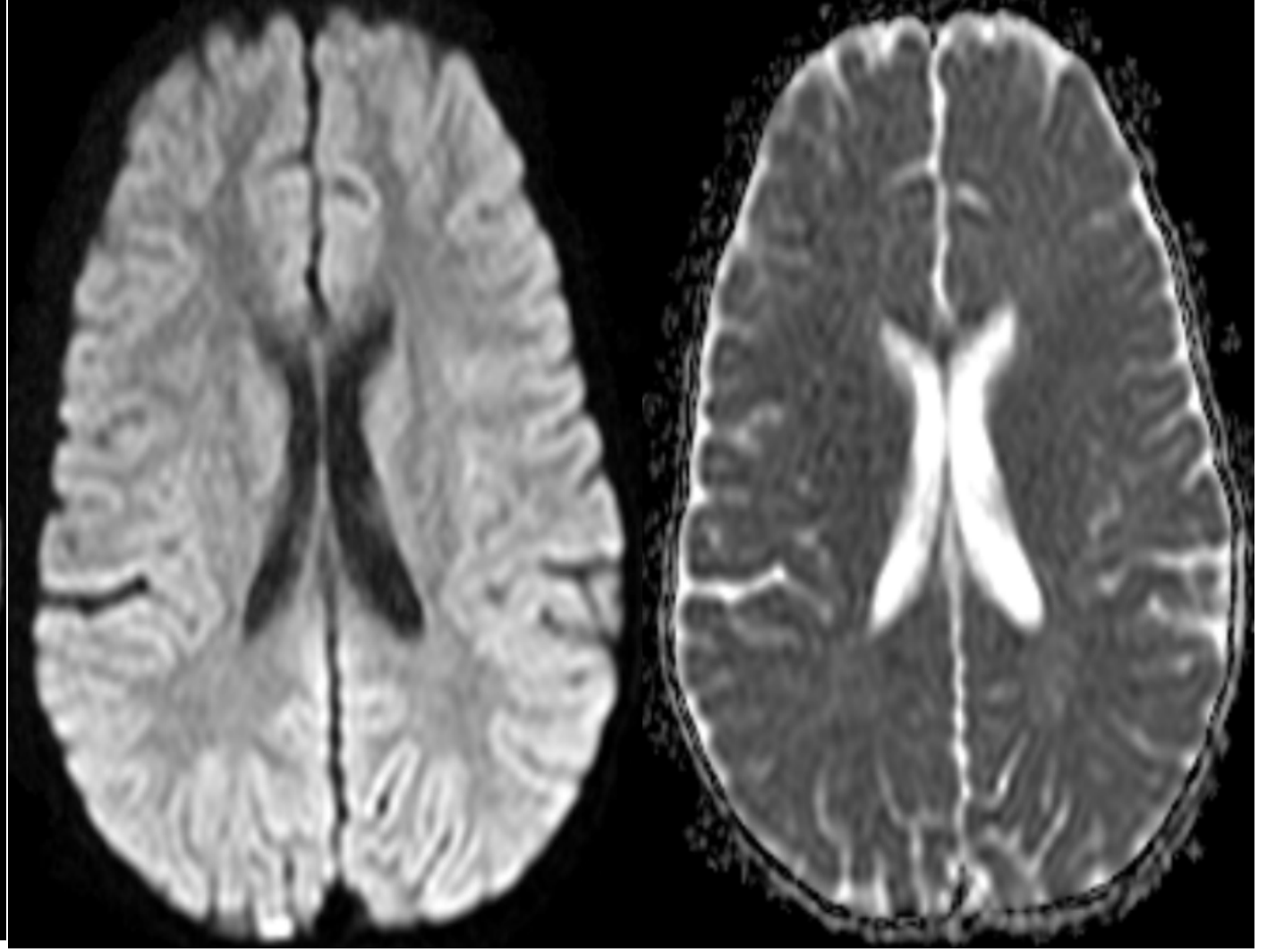
T2 Axial

T1 AXIAL

MRI DONE ON 15TH NOVEMBER 2024

NO FOCAL LESIONS OR SIGNAL CHANGES IN NEUROPARENCHYMA



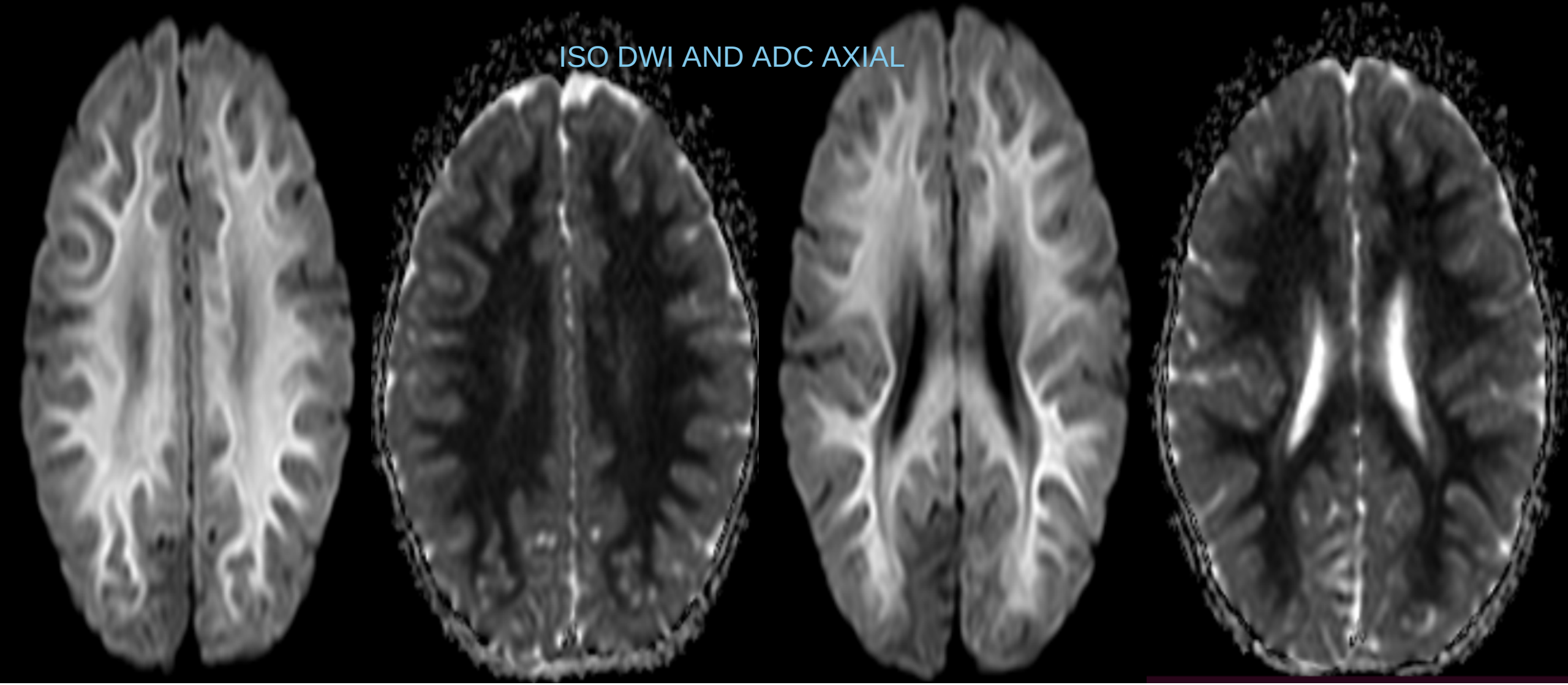


POST CONTRAST FLAIR & T1 AXIAL

DWI AND ADC

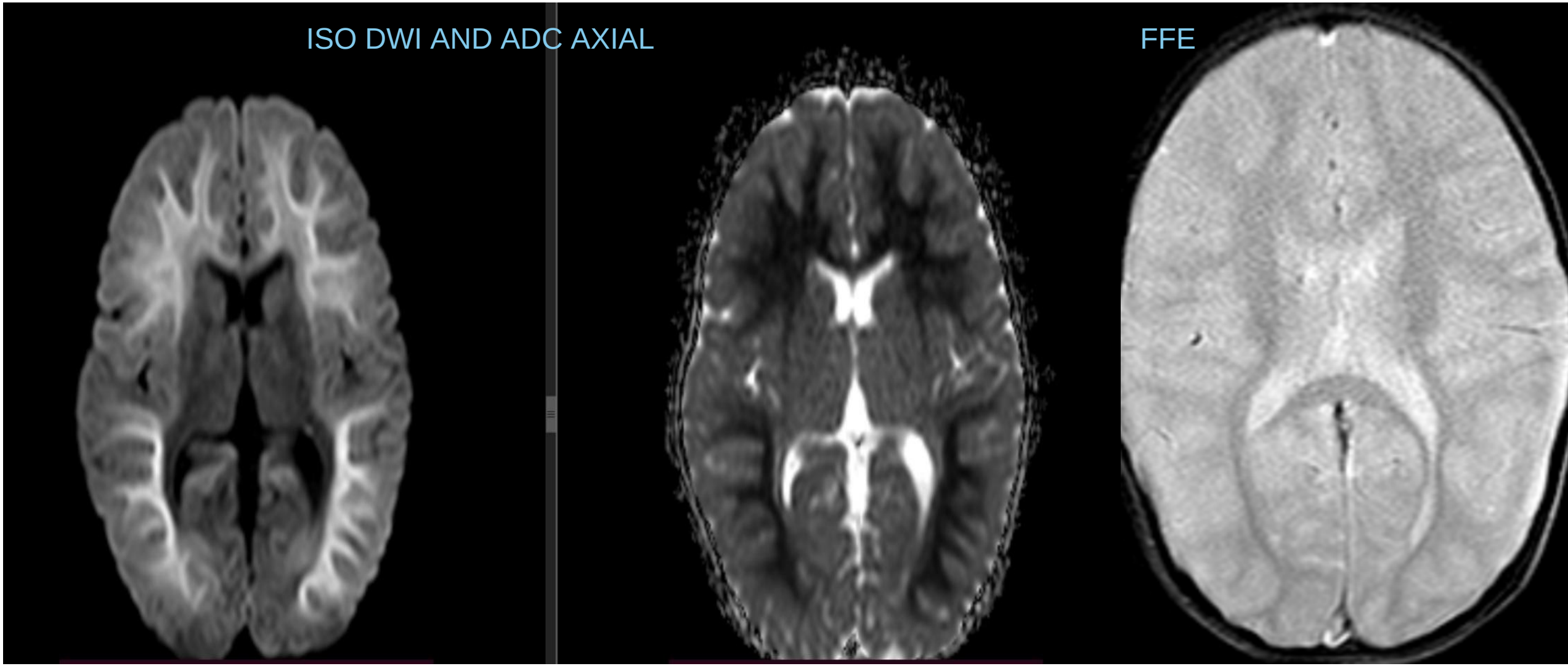
NO FOCAL LESIONS OR SIGNAL CHANGES IN NEUROPARENCHYMA
NO POST CONTRAST ABNORMAL ENHANCEMENT

- **5 DAYS POST THE INITIAL SCAN, baby had 3 hypoglycemic episodes (RBS <70 MG/DL)**
- **REPEAT CEMRI BRAIN WAS REQUESTED**



MRI DONE ON 20TH NOVEMBER 2024

Symmetrical areas of diffusion restriction with corresponding ADC matching noted (Average ADC value in affected white matter 0.2x10-3 mm2) involving all the lobes of bilateral cerebral hemisphere, genu and splenium of corpus callosum and bilateral external capsule giving a bright tree appearance with no abnormal signal intensities on T2/FLAIR. No blooming on GRE.



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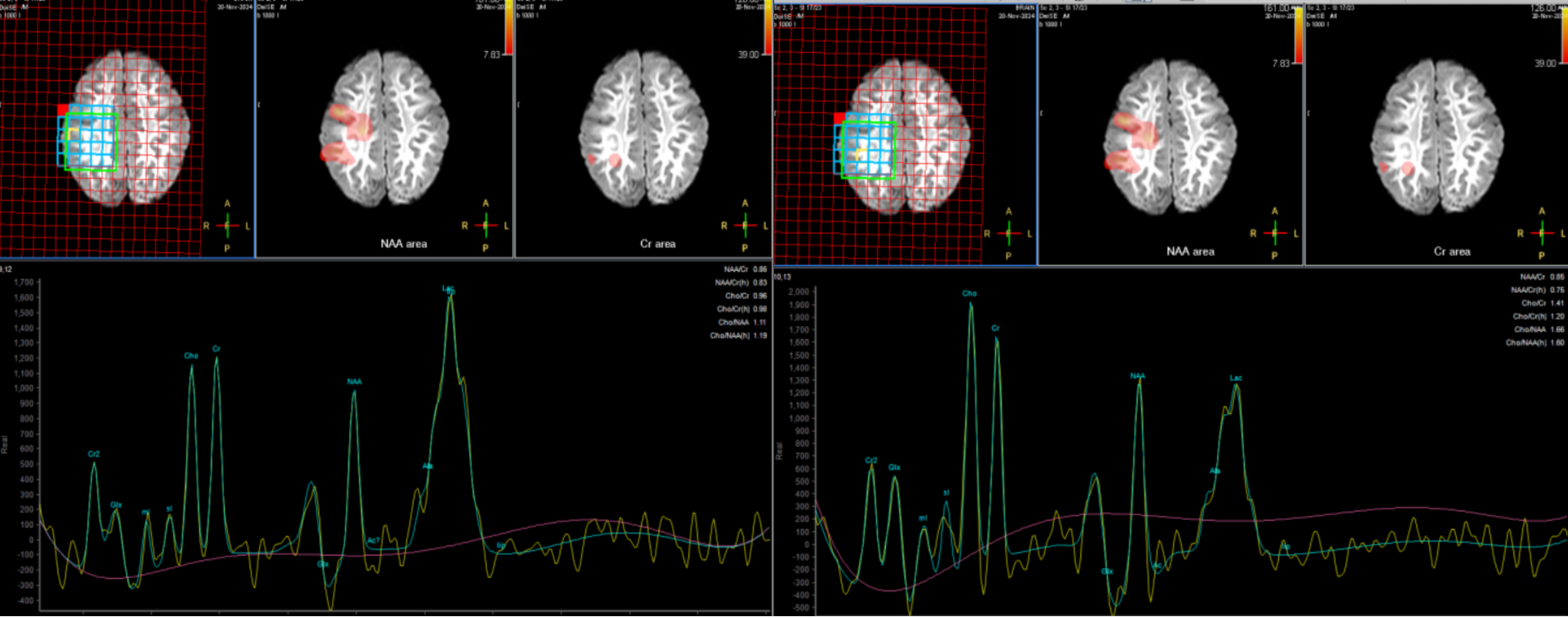

On MRS:

Increased choline at 3.2 ppm - Cell membrane and metabolism marker

Reduced NAA peak at 2.0 ppm - Reduced in any condition resulting in loss of neurons

Few areas showing Lipid-lactate peak at 1.2ppm - Raised in ischaemia, seizures, tumours, mitochondrial disorders

Impression:

- Symmetrical areas of diffusion restriction with corresponding ADC involving all the lobes of bilateral cerebral hemisphere , genu and splenium of corpus callosum and bilateral external capsule – S/o)
  Diffuse acute leukoencephalopathy with restricted diffusion (ALERD

THANK YOU