A RARE PRESENTATION OF ADEM

- SWETHA, 6yrs,female child
- 2nd born of NCM
- From Adhambakkam
- Brought by mother

- H/o pain while passing urine- 2week
- H/o fever for 1 week
- H/o lethargy -1 day
- No H/o increased frequency of urine/decreased urine output
- /discoloured urine
- No H/o abdominal pain/vomiting/loose stools
- No H/o cough,nasal or ear discharge

- Antenatal H/o: uneventful
- Natal H/o: FTND,Bt wt :3kg
- Post natal H/o: uneventful
- Developmentally normal,studying appropriate standard with fair performance
- Family H/o:uneventful
- Immunisation H/o: fully immunised as per NIS
- No H/o recent vaccination
- No H/o contact with TB

Child was brought in the state of shock Which was corrected with appropriate management

Empirically inj.cefotaxime was started

At presentation
Conscious,lethargic,sick looking,Verbal response, Eyes-midposition,EOM-normal,PERL.

Tone &posture –normal

No focal neurological deficit

INVESTIGATION

- Hb: 11.2gm/dl
- TC:10000
- DC: 63/34/3
- Platelet count: 4.3 lakhs
- Peripheral smear: Neutrophilia

- Urine routine:

alb-trace,sugar-nil,

dep:plenty of pus cells

- Blood sugar 93mg/dl
- RFT: Urea-23,cr-0.7
- LFT: SB-0.8,SP-6.6,ALB-3.8,GLO-2.8

- Usg abdomen: normal study
- Urine c & s-E.coli growth sensitive to amikacin
- Blood culture & sensitivity-E-coli growth sensitive to cefotaxime and amikacin
- Inj.AMIKACIN was added

- On day 2 & 3

  C/o generalised bodyache

  fever reduced
  vitals stable
  conscious,oriented,
  NFND.

DAY-4

- C/o difficulty in walking, decreased vision,difficulty in reading

- O/E:-

  conscious,oriented,PERL,EOM-normal,

  reduced distant and near vision

  Other cranial nerves normal

- Neck stiffness present ,Hypertonia on all 4 limbs, reflexes brisk,ankle clonus+,Plantar: b/l extensor,
- Paresthesia all over body more on right side present
- Posterior column,cortical sensation normal
- Ataxic with wide base gait

- CT BRAIN- Normal
- LP done
- CSF: sugar:71mg/dl,protein: 48.3mgs/dl

  6-8 WBC seen,

  predominantely lymphocytes

  Culture: no growth

  viral study-negative for JE,HSV,CMV

- OPHTHALMOLOGY OPINION :
- Both eyes-Vision 6/18,anterior segment normal,fundus-normal

- NEUROLOGY OPINION:

  ?ADEM,suggested MRI

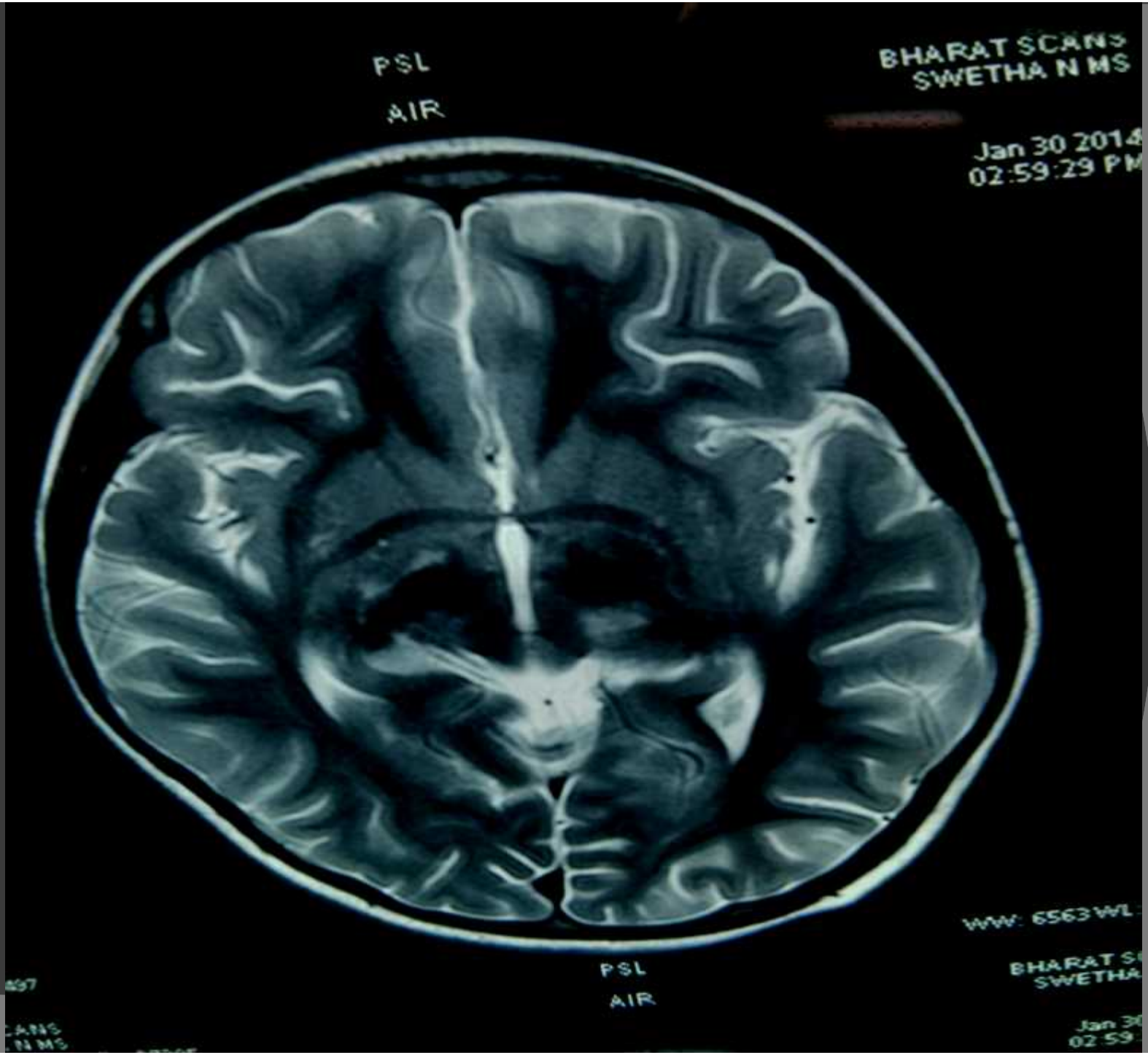
- MRI BRAIN :

  Non enhancing hyperintense foci in left thalamus and left cerebellar white matter on T2 FLAIR suggestive of

  ACUTE

  DISSEMINATED

  ENCEPHALOMYELITIS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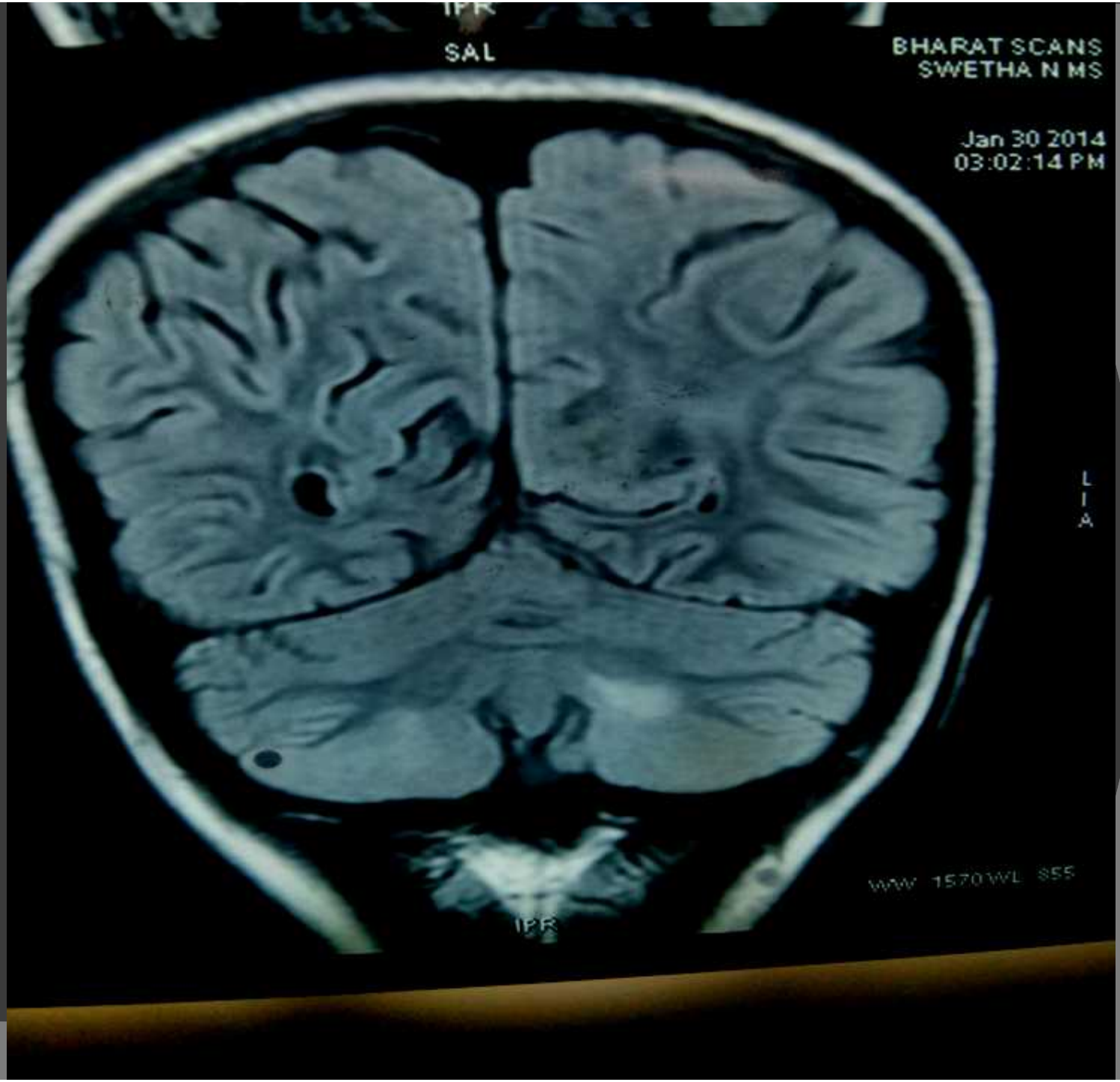
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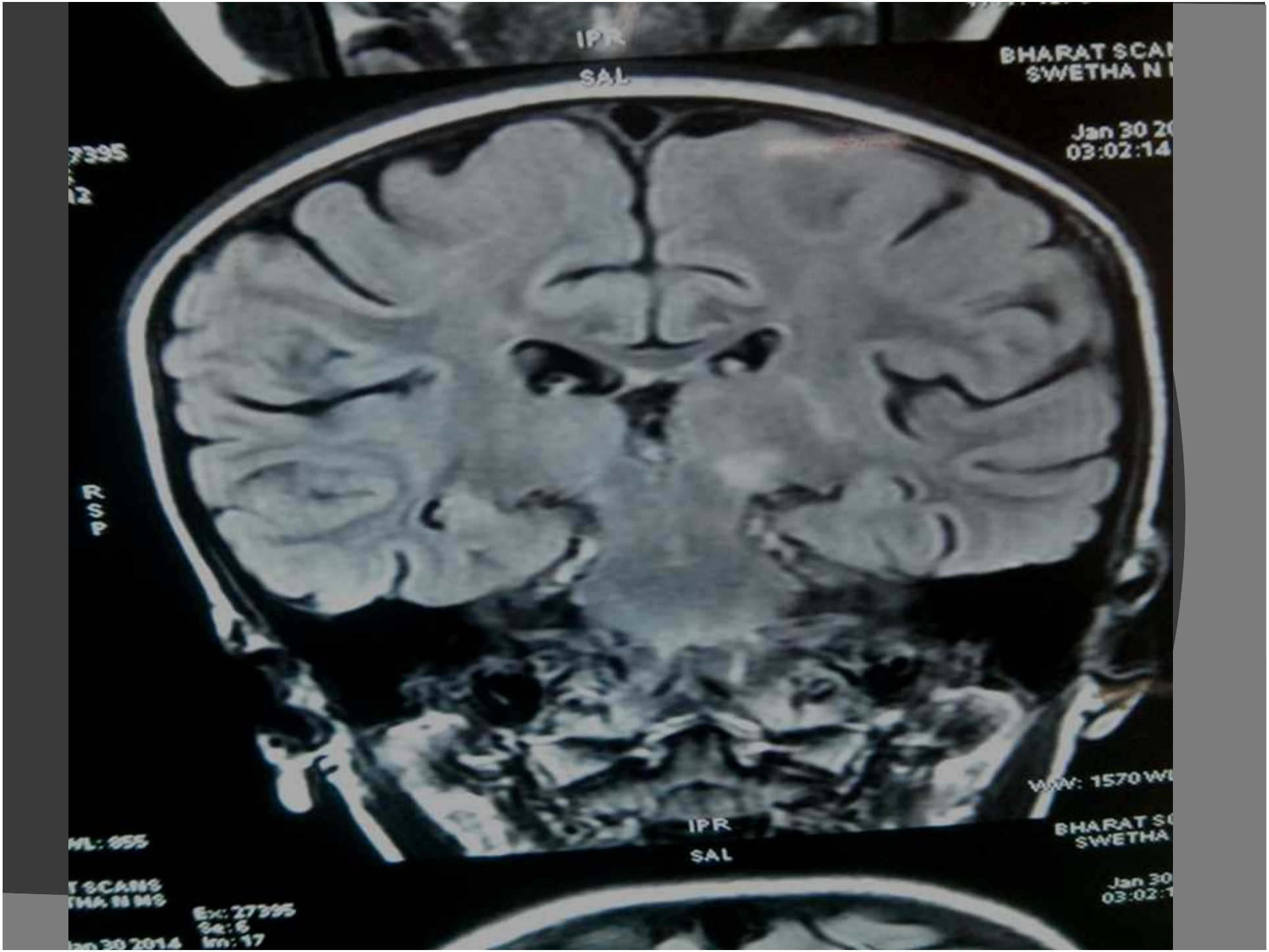
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- Inj.methylprednisolone was started
- general condition started improving dramatically
- Gait –improved,vision-improved
- Continued inj.methylprednisolone for 5 days
- Child became well symptomatically ,
- Changed to oral prednisolone
- Continued and tapered over four weeks
- iv antibiotics continued for 14 days

- Child was discharged on DAY 20
- On discharge child recovered completely
- Neurologically normal and vision normal
- Repeat urine culture negative
- Reviewed the child opd for 2 weeks,no specific complaints.

ADEM

- Acute disseminated encephalomyelitis
- ADEM is an monophasic,immune mediated illness that follows immunization or infection.
- Rapidly developing neurological illness

CLINICAL FEATURES

SYSTEMIC

- FEVER
- BODYACHE

CNS

- MENINGISM,
- ALTERED SENSORIUM
- PARTIAL OR GENERALISED SEIZURES
- CRANIAL NERVE DEFICITS
- OPTIC NEURITIS,VISUAL DISTURBANCES
- HEMI/PARAPARESIS
- ATAXIA,
- MYOCLONUS AND OTHER INVOLUNTARY MOVEMENTS
- FEATURES OF RAISED ICT

DIAGNOSIS

- Recent h/o vaccination,viral fevers(mumps,measles,rubella,varicella,herpes)
- **CSF**-usually normal or mild increase in lymphocytes(100-200 cells/cu.cm),proteins may be mildly elevated.oligoclonal banding negative
- **CT BRAIN**-multiple hypodensities in white matter which may enhance with contrast
- **MRI BRAIN**-disseminated multifocal white matter hyperintensity lesion in white matter,basal ganglia and brain stem consistent with edema,inflammation and demyelination,which may enhance with godolinium

DIFFERENTIAL DIAGNOSIS

- First attack of MULTIPLE SCLEROSIS
- Acute meningitis and encephalitis
- Vasculitis
- CVA
- Suppurative thrombophlebitis
- GBS

DD between ADEM & MS

ADEM	MS
common in children	Common in adults
Monophasic	Polyphasic
Postinfectious ,postvaccination encephalomyelitis	Not related to infection or vaccination
MRI-small foci of demyelination	Larger confluent demyelinating lesions
CSF-Oligoclonal banding negative	Oligoclonal bands common
Recurrence is rare	Recurrence common

TRETMENT

- HIGH DOSE STEROIDS
- IV IMMUNOGLOBULIN
- PLASMA EXCHANGE

PROGNOSIS

- Prognosis -Measles encephalomyelitis worse prognosis
- Long term complications

  Persistance seizures,

  Behavioral and learning disorder

CARRY HOME MESSAGE

THANK YOU

- Next city paediatric meet will be at
- ESI medial college hospital ,K.K.nagar
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