

# CITY PAEDIATRIC MEET

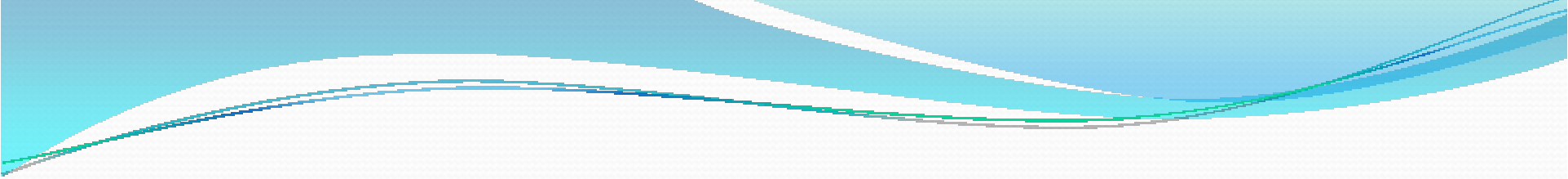
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## A RARE CASE OF ALTERNATING HEMIPARESIS



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- 4yr old born to NCM parents
  - Delivered by LSCS
  - Antenatal period uneventful
    - No birth asphyxia
  - Admitted in NICU for meconium stained liquor
  - Had seizures on D1 of life, discharged after 7 days

- On 5<sup>th</sup> and 7<sup>th</sup> month of age, child had seizures/ vacant stare with deviation of eyes for 2-3 min
- T . Phenobarbitone 30mg od started
- Social smile- normal
- Head control- normal
- Standing at 1 ½ yrs
- Walking at 2 yrs
- Started speaking at 2 yrs of age, now speaking 3 or 4 words
- Fine motor and social development normal

- At 2yrs of age, child had drooling, unresponsiveness, staring associated with weakness of right UL>LL and at times left UL>LL, at times both, both UL>LL
- Started on T sodium valproate 200mg 1/2 BD and T PBT 1 ¼ HS
- Child had few episodes like this
- 3 months later, 2 ¼ years of age, child used to get episodes of weakness of either right UL & LL or left UL & LL, UL>LL, at times both UL and LL

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- Frequency 1-2/week lasting for 10- 20 min at times even hours/even days
  - Occurs at any time of day, no precipitating factors
  - No improvement with sleep
  - For which T flunarizine added
  - In spite of all these drugs, child had recurrent episodes
  - PBT tapered and stopped
  - Still recurrent episodes present but frequency decreased
  - Child is on T Carbamazepine, T.sodium valproate and T.Flunarizine

## FAMILY HISTORY

- One elder male sibling normal
- Mother has recurrent headache since 10 yrs of age
- 1 episode/month , holocranial
- Throbbing lasting for hours to one day, no vomiting or visual disturbance
- Precipitated by stress, sleep relieves headache
- Maternal grandmother had similar headache
- No family h/o seizures

## INVESTIGATIONS

- CBC, RFT, LFT – normal
- CT BRAIN normal
- MRI BRAIN normal
- EEG done twice normal
- Cardiac evaluation normal
- Ophthal evaluation normal
- CSF sugar normal, , concurrent RBS normal ,cell count acellular
- CSF lactate and pyruvate normal

# Examination


- No skin lesions
- Other systems normal
- CNS examination normal except for mild motor delay

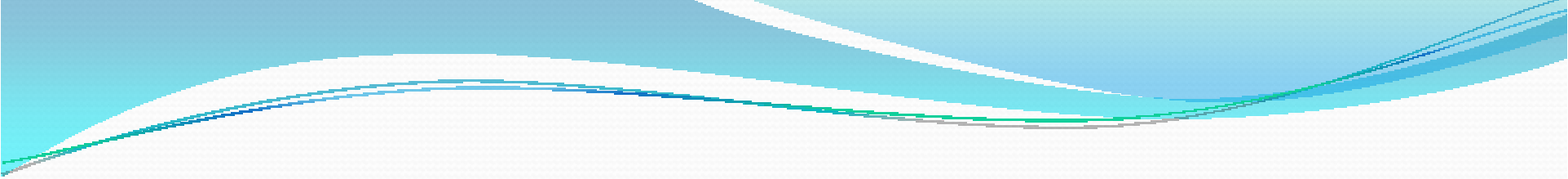


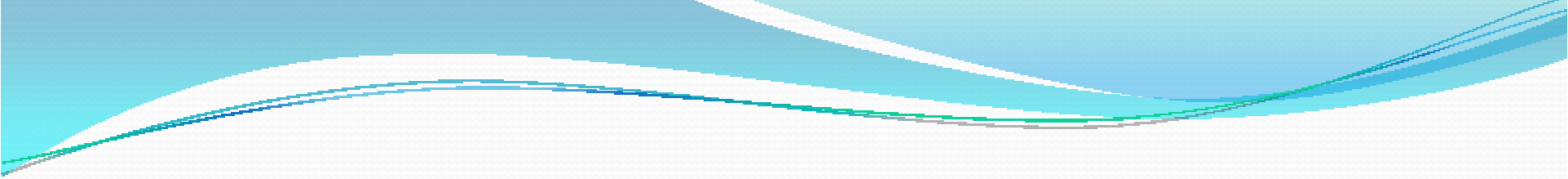


# ALTERNATING HEMIPARESIS

- Incidence 1 in million
- Onset <18 month age
- Duration min/hours/day
- Frequency vary
- Bilateral hemiplegia at times
- Other paroxysms- tonic/ dystonic spell, peculiar mono ocular nystagmus, squint, autonomic features

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- Disappearance of all symptoms with sleep
  - Symptom may reappear on awakening after 20 min
  - Epilepsy in 20 to 50%
  - Development delay, learning disability
  - Less frequent episodes in older children
  - High prevalence of migraine in families

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- CAUSE- ?????
  - Post ictal
  - Mitochondrial cytopathy
  - Cerebro vascular dysfunction
  - Migraine equivalent
  - Channelopathy
  - TREATMENT- Flunarazine, topiramate, aripiprazole

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- Neurophysiologic recording during attack- impaired brainstem circuits
  - FDG-PET interictal pd –low glucose metabolism in frontal & putamen with normal metabolism in brainstem .
  - Microscopic Postmortem appearance abn vascular smooth musclecells-transient small vessel dysfunction in the brain

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THANK YOU