A RARE CASE OF ALTERNATING HEMIPARESIS
- 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 5th and 7th 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 1½ 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 1¼ 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
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
- Inspite 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 o seizures
INVESTIGATIONS

- CBC, RFT, LFT – normal
- CT BRAIN normal
- MRI BRAIN normal
- EEG done twice normal
- Cardiac evaluation normal
- Ophthalmal 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 monoocular nystagmus, squint, autonomic features
• 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
- **CAUSE-** ????
- Post ictal
- Mitochondrial cytopathy
- Cerebro vascular dysfunction
- Migraine equivalent
- Channelopathy
- **TREATMENT-** Flunarazine, topiramate, aripiprazole
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