VARIATIONS IN CLINICAL PRESENTATION, NEUROIMAGING AND ELECTROENCEPHALOGRAPHIC PATTERNS OF SUBACUTE SCLEROSING PANENCEPHALITIS

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BACKGROUND

- Subacute sclerosing panencephalitis is a progressive neurodegenerative disorder with wide clinical spectrum varying from typical features of cognitive decline and myoclonic seizures to atypical features like psychosis, focal deficit, chorea and visual loss.[1,2]
- Having diverse presentation, diagnosis of SSPE need a high index of suspicion with prompt electrophysiological and biochemical investigations especially in developing countries where measles is endemic and vaccination status is not up to the mark.[3]

OBJECTIVE

- To determine variations in clinical presentation, neuroimaging and electroencephalographic patterns of subacute sclerosing panencephalitis.
- To formulate early diagnosis of SSPE by identifying atypical presentation avoiding unnecessary exhaustive workup.

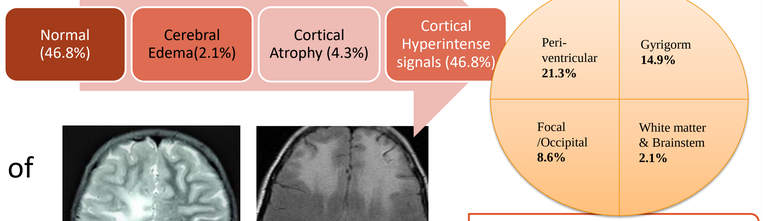
METHODOLOGY

- Cross sectional study. Non-probability, purposive sampling
- Department of Child Neurology, Children's Hospital, Lahore, Pakistan Jul 1- Dec 31.
- Sample size was 47 ,95 % CI and 5% margin of error
- **Inclusion criteria** Either gender of 1 to 18 years with clinical presentation suggestive of SSPE, as per Jabbour classification along with positive anti-measles IgG antibodies.
- **Exclusion criteria** Negative anti-measles antibodies on CSF (<1.5 IgG liquor assay), progressive myoclonic epilepsies, acquired demyelinating disorders, leukodystrophy and mitochondrial disorders.

RESULTS

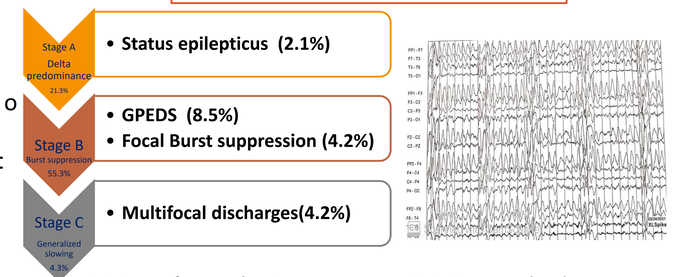
- Males were 29 (61.7%) and 18 (38.3%) were females. The mean age of the patients was 6.54 ± 2.9 years. Only 23% were fully immunized against measles.
- Mean age of measles infection was 1.49 ± 1.2years; mean age of onset of SSPE was 6.29 ± 2.9 and the mean interval between measles and onset of SSPE was 4.13 ± 3.0 year.
- Majority of the patients were of Jabbour Classification Stage II (36.2%) and atypical presentation (38.3%)

Spectrum of Imaging Findings



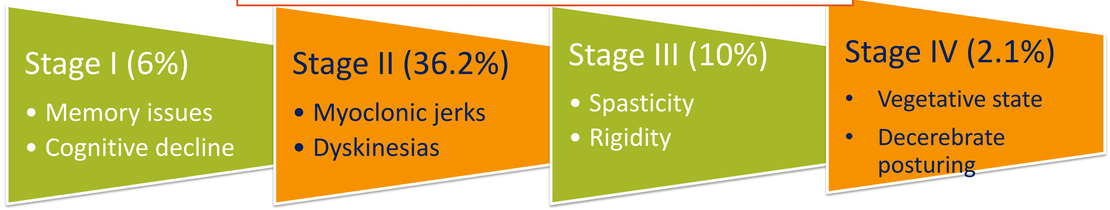
T2W/Flair hyperintense signals

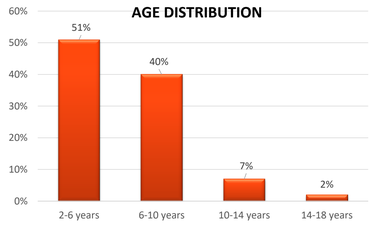
Spectrum of EEG Findings

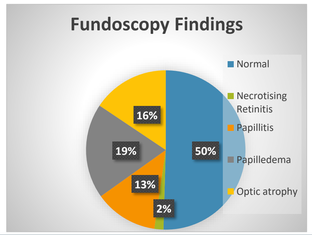


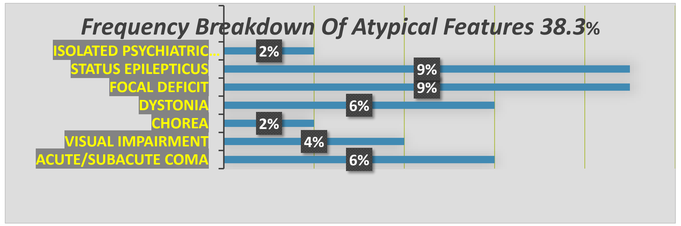
- Acquisition of measles in age group 1-1.5 years had a shorter latency ie 4.13 ± 3.0 years with significant p value **<0.001.**

Breakdown of Jabbour Clinical Staging









CONCLUSION

The earlier age of measles and non immunisation led to change in epidemiological trend, posing a high index of suspicion to identify SSPE with atypical presentation including very early onset, shorter latency and atypical neuroimaging and EEG spectrum

REFERENCES

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2. *Rabanese AC, Cruz-Urbi CM. Demographic, Clinical, Imaging and EEG Characteristics of Subacute Sclerosing Panencephalitis. Eur jour Pediat Neurol. 2017(6); 21(1): 110*
3. *Gokoglu A and Gozdas HT. Subacute Sclerosing Panencephalitis Presented with Neuropsychiatric Symptoms. J Coll Physicians Surg Pak. 2019; 29 (Special Supplement 1 of Case Reports): S29-S30*

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