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Electroencephalogram Results

Methodology:

The EEG was performed using standard 10-20 electrode placement.
The patient was awake and calm, with a full set of electrodes applied.
Continuous recording was conducted for approximately 30 minutes, with 5 minutes of hyperventilation and photic stimulation included.

Electrode Montage:

Referenced to Cz using standard bipolar and average referential montages.

Background Activity:

The background rhythm showed a mix of theta and delta activity, with predominant slowing noted.
Sleep cycles were not achieved during the recording due to the patient's irritability.

Interictal Activity:

Slow Spike-and-Wave Discharges: Notable for slow spike-and-wave discharges at a frequency of 1.5 to 2.5 Hz, seen predominantly in the frontal and central regions.
Generalized Abnormalities: Widespread background slowing with occasional bursts of rhythmic delta activity.

Ictal Activity:

Infantile Spasms: During the recording, there were several episodes of brief, generalized seizures characterized by multifocal spikes followed by slow waves. These episodes correlate with the patient's reported history of infantile spasms.
Atonic Seizures: Occasional generalized slow wave discharges suggestive of atonic seizures, demonstrating the typical pattern associated with Lennox-Gastaut syndrome.
Photoparoxysmal Response: Mild photoparoxysmal response was observed during photic stimulation, with increased slow wave activity but no clear seizure activity.
Artifacts: Some muscle artifacts noted during periods of increased movement and agitation.

Impression

EEG Findings: The EEG demonstrates typical features of Lennox-Gastaut syndrome, including slow spike-and-wave discharges and generalized background slowing.
Seizure Types: Evidence of both infantile spasms and potential atonic seizures was noted during the recording.

MRI Brain wwo Results

Findings:
Brain Structure:
Overall: The brain appears to be of normal size and shape for age.
Cortex: Mild cortical atrophy noted, particularly in the frontal and temporal lobes.
Gyri and Sulci: Normal configuration with no significant cortical dysplasia observed.

White Matter:
No evidence of demyelination or significant white matter abnormalities.

Basal Ganglia and Thalami:
Normal in size and morphology; no lesions or atrophy noted.

Ventricles:
Ventricles are symmetric and within normal limits for age.

Cerebellum:
No atrophy or structural abnormalities observed.

Additional Findings:
No evidence of structural lesions such as tumors, vascular malformations, or focal cortical dysplasia.
No signs of significant congenital anomalies.

Impression: Mild cortical atrophy, otherwise unremarkable MRI brain.