# Implementing to Pediatric Clinical Practice

## Seizure Type Classification

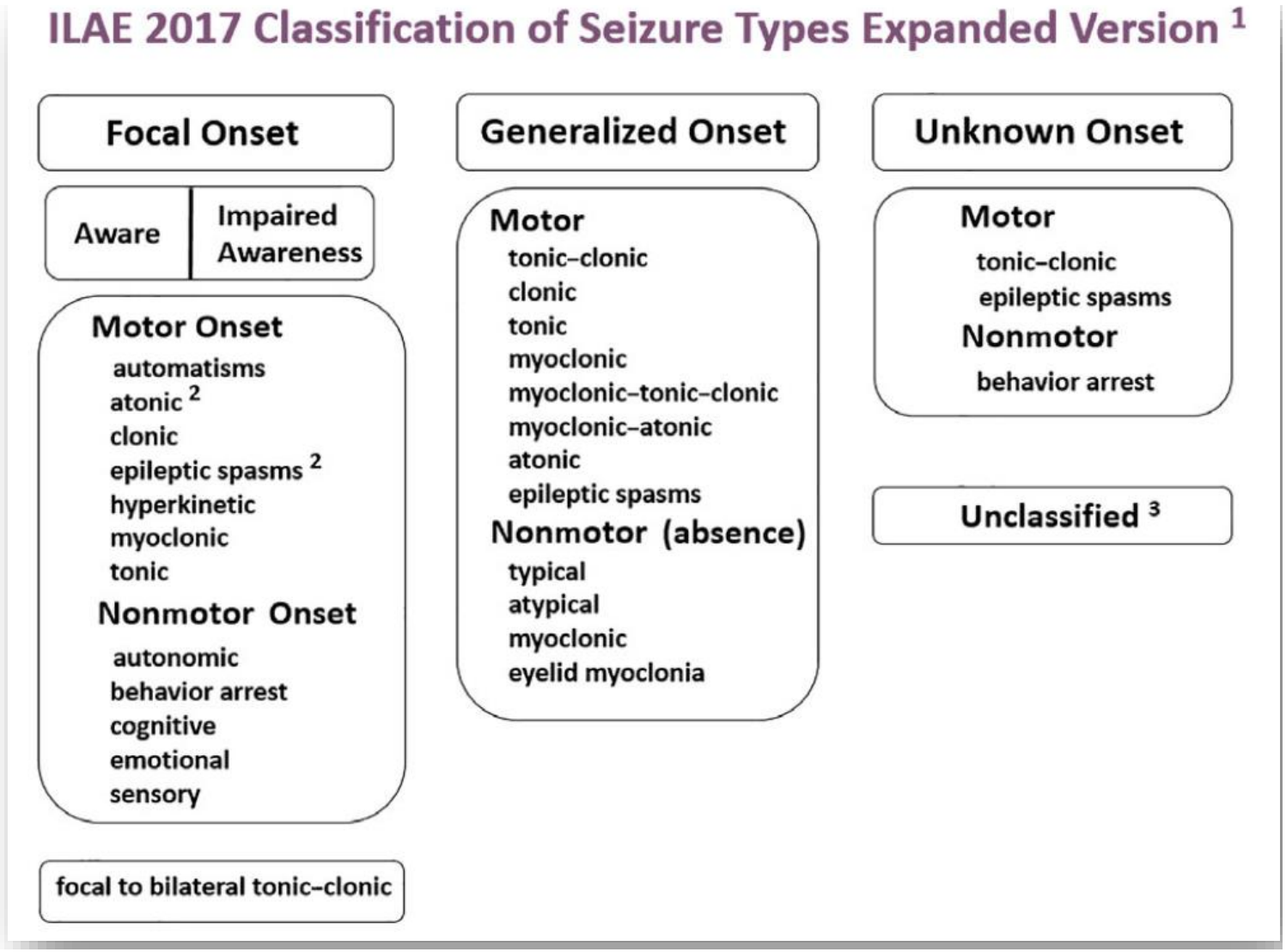
By Sorawit Viravan

**Level 1**

**Level 2**
**(only focal)**

**Level 3**

**Level 4**



# Ped 1: Absence seizure

Absence seizure

Generalized (non-motor)
typical absence seizure

# Ped 2: Focal clonic seizure

Simple partial seizure

Focal aware motor
(left face / arm clonic) seizure

# Ped 3.1: Seizure type

- 14-month-old boy has sudden extension of both arms and flexion of the trunk for about 2 sec
- These seizures repeat in clusters

# Ped 3.2: Supportive data

- EEG shows hypsarrhythmia with bilateral spikes, more prominent over left parieto-occipital area
- MRI shows cortical dysplasia at left parieto-occipital region

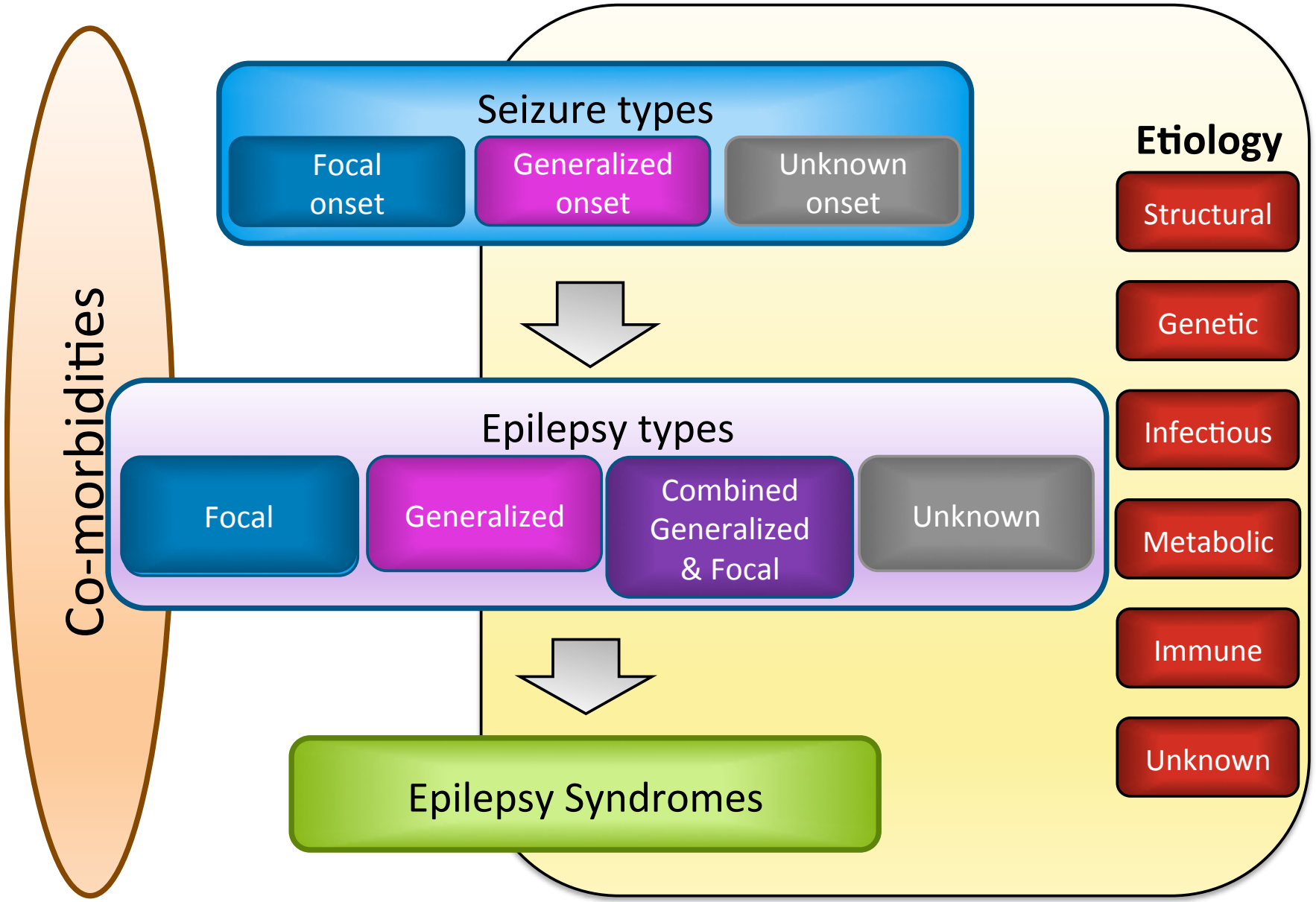
# Ped 3: Infantile spasm

Infantile spasm

Focal epileptic spasm

# Implementing to Pediatric Clinical Practice

## Epilepsy Type & Syndrome


Co-morbidities
Seizure types
Focal onset
Generalized onset
Unknown onset
Epilepsy types
Focal
Generalized
Combined Generalized & Focal
Unknown
Epilepsy Syndromes
Etiology
Structural
Genetic
Infectious
Metabolic
Immune
Unknown

# Ped 4: Epilepsy type & syndrome

- 7-year-old boy with mental retardation
- 3 years ago, he had history of hypoxia and seizure
- Currently, he has frequent fall causing injury. He also has several brief both arm jerking /day
- EEG: Slow spike-wave complexes
- CT brain: Diffuse brain atrophy

# Epilepsy framework

Seizure type

Epilepsy type

Epilepsy syndrome

Etiology

Co-morbidity

# Ped 4: Epilepsy framework

Generalized atonic and myoclonic seizure

Generalized

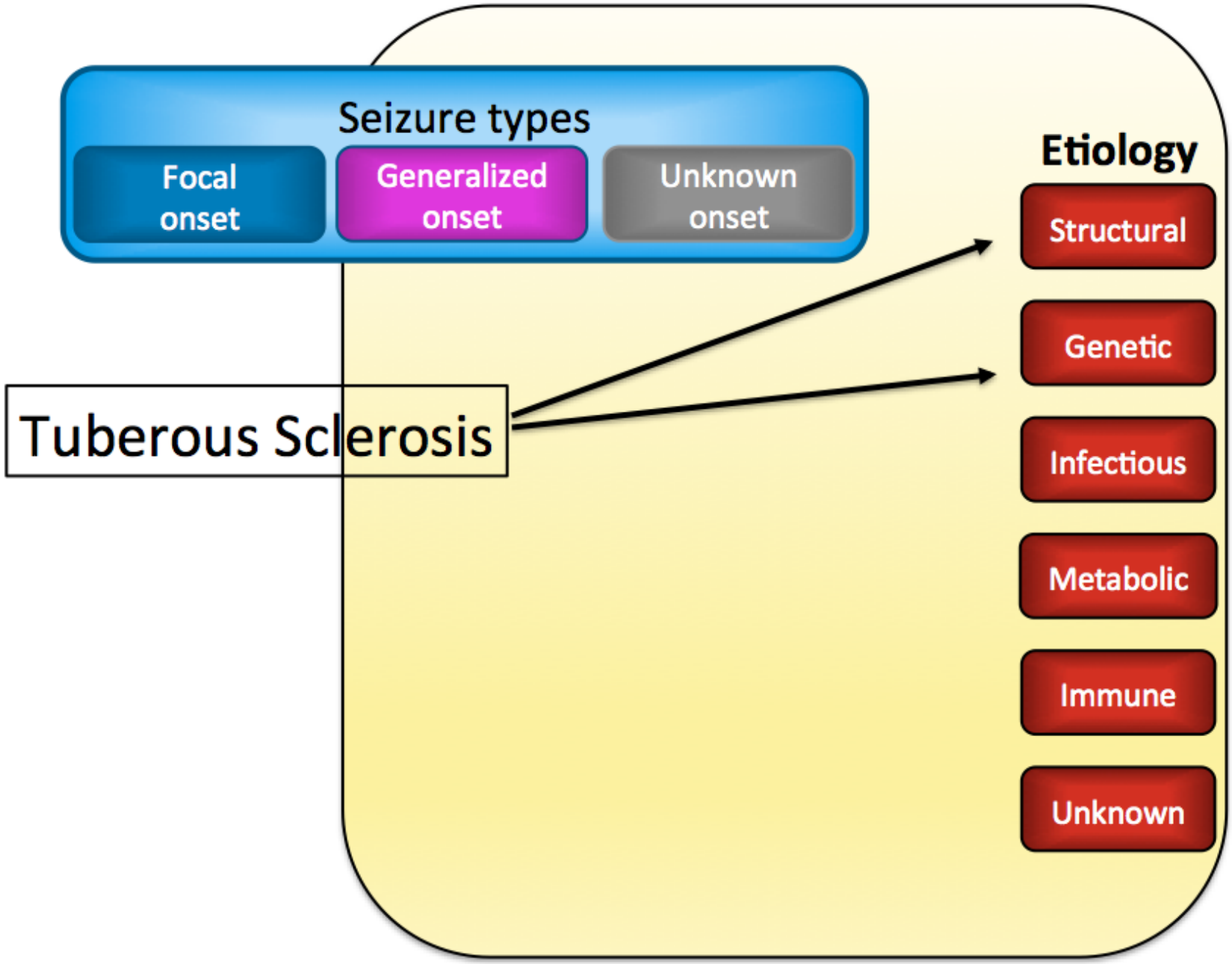
Lennox-Gastaut syndrome

Structural: HIE

Mental retardation

# Infantile spasm with TSC

- Sz type: (Focal) Epileptic spasm
- Epilepsy type: Focal
- Syndrome: West syndrome
- Etiology: Structural & Genetic (TSC)
- Comorbidity: GDD


Seizure types
Focal onset
Generalized onset
Unknown onset
Etiology
Structural
Genetic
Infectious
Metabolic
Immune
Unknown
Tuberous Sclerosis

# Ped 5: Epilepsy type & syndrome

- 3 year-old girl had several seizures usually aggravated by fever
- Seizure onset: 6 months (after vaccination)
- Seizure was described as body stiffening sometimes blank staring and unresponsiveness
- Development: abnormal gait, no single word
- EEG: multifocal spikes
- MRI: unremarkable

# Epilepsy framework

Seizure type

Epilepsy type

Epilepsy syndrome

Etiology

Co-morbidity

# Ped 5: Epilepsy framework

Generalized tonic seizure
Focal impaired awareness seizure

Combined generalized & focal

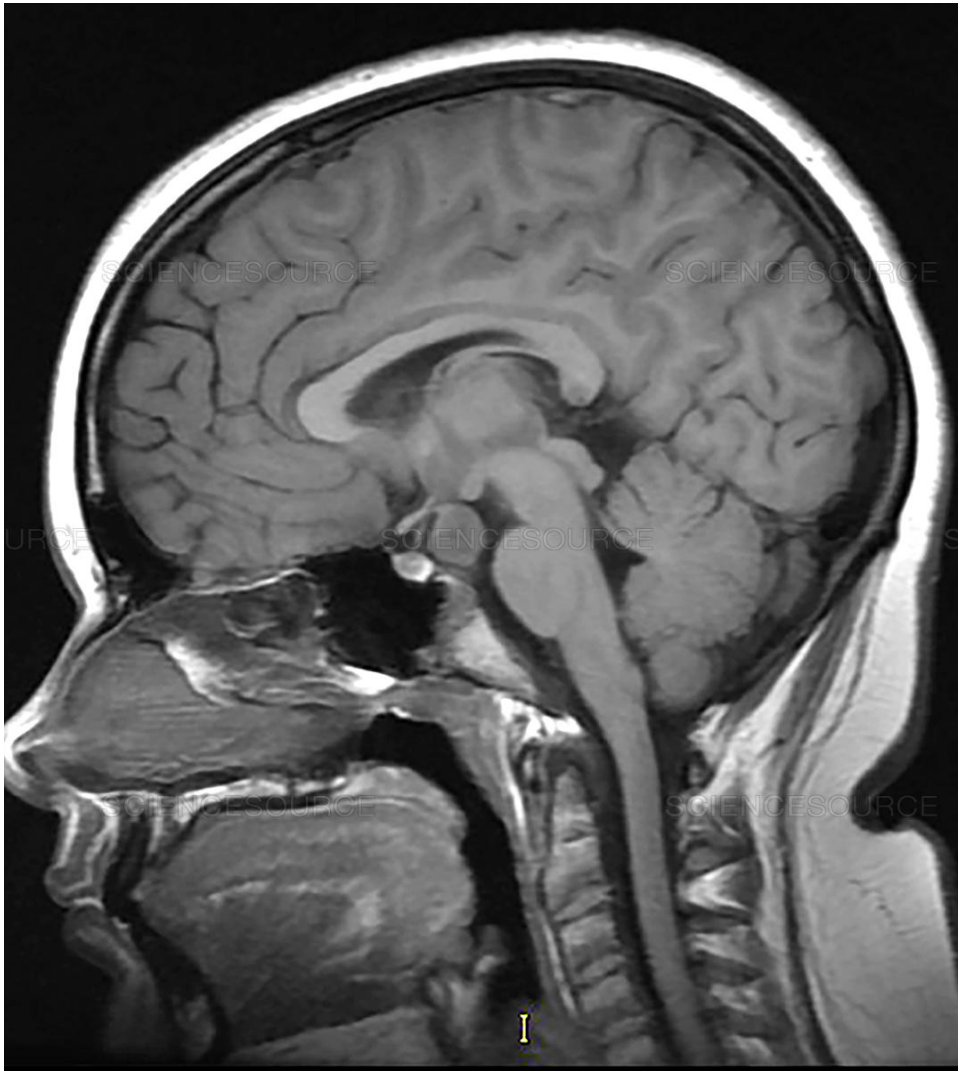
Dravet syndrome

Genetic: SCN1A

Delayed speech

# Ped 6: Epilepsy type & syndrome

- 7-year-old girl
- Frequent laughing
- EEG: normal
- MRI brain →



# Epilepsy framework

Seizure type

Epilepsy type

Epilepsy syndrome

Etiology

Co-morbidity

# Ped 6: Epilepsy framework

Focal impaired awareness emotional seizure

Focal

Gelastic seizure with hypothalamic hamartoma (HH)

Structural: HH

No