Epilepsy and its Classifications

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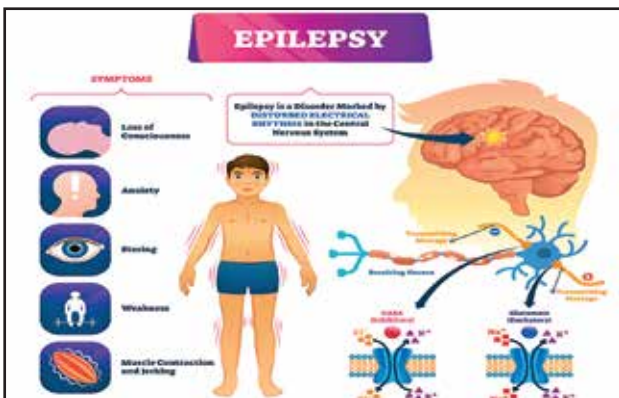1st Year MBBS, Islamabad Medical and Dental College, Islamabad Pakistan

Key points

➤ Classification of epilepsy provides a recognizable diagnosis/etiology and improves comprehension

➤ According to the World Health Organization (WHO), epilepsy affects 50 million people worldwide

➤ There are 3 main types based on seizure onset: Focal Onset, Generalized Onset, and Unknown Onset

Seizures and epilepsy classifications were previously developed in 1981 (ILAE, 1981), 1985 (ILAE, 1985), and 1989 (ILAE, 1989).1 Seizure and epilepsy classifications are crucial for clinicians and care teams, patients and families, and researchers.2 From the perspective of the patient, it provides a recognizable diagnosis/etiology and improves comprehension. For clinicians and the patient's care team, these classifications enhance communication and discussion. These classifications allow researchers to investigate drugs or surgical treatments, responses, and typical clinical courses for various types of seizures and epilepsy.

Definition

Epilepsy is a neurological disorder characterized by unprovoked, recurrent seizures.3 A seizure is an abnormal surge of electrical activity in your brain. Epilepsy is diagnosed when you have two or more seizures with no other identifiable cause, According to the World Health Organization (WHO), epilepsy affects 50 million people worldwide and nearly 3.5 million people in the United States, according to the Centers for Disease Control and Prevention (CDC).Epilepsy can affect anyone, but it most commonly occurs in young children and older adults. According to research published in 2021, men are more likely than women to develop epilepsy, possibly due to greater exposure to risk factors such as alcohol use and head trauma.

Source:https://myacare.com/blog/pediatric-epilepsy-how-is-epilepsy-different-in-children

Classification

There is an old terminology for the classification of epilepsy and a modern terminology by ILAE for Epilepsy. In 2017 the International League against Epilepsy revised the classification of seizure types as well as epilepsy types which allows us to use a common language to discuss and research epilepsy.4 It also allows us to provide information to patients about the trajectory of their disease, prognosis, and possible comorbidities. It is important to note this classification system is to be used when diagnosis of epilepsy has already been made.

There are 3 main types based on seizure onset: Focal Onset, Generalized Onset, and Unknown Onset.

Focal onset

A seizure is considered focal when it begins in cortical area or hemisphere. A seizure is generalized when both hemispheres are rapidly involved at the onset. A third category of unknown set is used when the onset is absent or unclear, but the seizure must be described using all known features. Onset is perhaps the most important characteristic to correctly identify, as it affects treatment with antiepileptic drugs and for early identification of potential candidates for epilepsy surgery.

Generalized Onset

Generalized convulsions are associated with disturbances of consciousness due to damage to both hemispheres, so it is not necessary to indicate this in the classification. As with focal seizures, there may be motor or non-motor seizures. It is important to remember that a generalized seizure does not necessarily mean that the manifestations are symmetrical or that all parts of the brain are equally involved.

Unknown Onset

Unknown indicates that the cause of epilepsy has not yet been identified. This may be because processing has not been completed or processing has not been disclosed. Also, depending on the source, a comprehensive study may not be possible.

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