

Behavior Manifestations of Seizures

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In working with persons with developmental disabilities, we've been asked frequently whether a particular mood or behavior is part of a seizure disorder or whether it is separate. We are also asked if the person is having "real seizures"? To help sort things out, it is important to have a general diagnostic schema to refer to and to think of some common manifestations of seizures that could be seen, for instance, as challenging "behaviors"

I. TYPES OF SEIZURES

A. GENERALIZED SEIZURES: first clinical ictal changes indicate an initial involvement of both hemi-spheres, often with impairment of consciousness. Motor manifestations are frequently bilateral.

Absence:

usually brief impairment of consciousness associated with unresponsiveness and interruption of ongoing activity for up to 30 seconds.

Myoclonus:

bilateral, sudden brief jerks that may involve all four limbs or be restricted to the upper limbs, the trunk or the head, may occur singly or in clusters up to several hours.

Clonic:

repetitive clonic jerking of all limbs, head and trunk at a rate of 2-3/s.

Tonic:

rigid persistent muscular contractions that fix the limbs in a sustained position; may last for minutes at a time.

Tonic-clonic:

tonic phase followed by clonic phase, associated often with postictal confusion, sleepiness, or headache.

Atonic-Akinetic:

sudden loss of muscle tone that may be generalized, causing a sudden fall (to the ground) or may be restricted to head or limbs; brief (few second) duration.

B. PARTIAL SEIZURES: first clinical or EEG changes suggest an initial activation of a system of neurons limited to one part of one cerebral hemisphere.

Simple partial:

consciousness is not impaired; symptoms may include motor, somatosensory, autonomic, or psychic-reflecting activity in focal brain areas.

Complex partial:

characterized by impairment of consciousness: may be associated with staring or automatic movements which are purposeless, relatively complicated movements of normal quality without associated convulsions, tremor, or myoclonus. Psychiatric symptoms are often seen as manifestation of activity in limbic circuits.

Partial seizure evolving to secondary generalization:

a generalized seizure may evolve from either simple or complex partial seizures.

C. UNCLASSIFIED: those seizures that cannot be classified because of inadequate or incomplete information, or by their nature defy the above classifications.

IS IT A SEIZURE?

A seizure is composed of the preictal, ictal, and post-ictal phases. Pre-ictally, people may have a sudden rise in anxiety or fear, or may experience another characteristic (for the individual) sensation. This is termed the "aura".

People who have frequent seizures may become adept at aborting the attack by initiating a competing activity or sensation during the aura, or may use this warning to get themselves to a safe position. The ictus is the period of brain electrical and behavioral manifestations that are not under conscious control. When the ictal state is maintained, it is termed, status epilepticus and often warrants emergency treatment. Status may occur in primary generalized seizure disorder as well as in partial seizure disorders. Post-ictal states are usually a result of the duration and severity of the ictal phase and include fatigue, confusion, and slowed processing.

Many persons with documented epilepsy also have emotional seizures, previously known as pseudoseizures. Emotional seizures are most frequently not under the conscious control of the individual, although they may be in response to stressors or predictable emotional states. Having the behavior of seizures has many meanings. Sometimes it may reflect learned behavior to receive attentive care, at other times, it may be a sub-conscious response to overwhelming stress. Whatever the etiology of its origin, the emotional seizure is maintained by the brain just as other learned habits.

The history of symptom development, exacerbation and resolution is the best way to diagnose seizure disorders, whether epileptic or emotion-al (non-epileptic). Behavioral components of epileptic seizures are usually stereotyped and repetitive from one seizure episode to another. The person looks preoccupied and not present, a state which continues into the post-ictal stage. (A notable exception to this general rule is absence seizures which are of short duration.) Stress exacerbates all types of seizures. Epileptic seizures increase in frequency, but retain their original nature. Emotional seizures are often modified by the continued internal pressure of the stress and may increase in frequency, become more complex, or increase in duration for each episode.

Seizures that originate in the temporal lobe often produce psychiatric and behavioral symptoms that are sometimes hard to distinguish from primary mood disorders or disorders of impulse control. For instance, a person may "strike out" as part of a seizure episode. There are several possible reasons for such aggression. Most frequently, aggression occurs in the post-ictal phase and is not directed. An individual may be hurt or the environment may be damaged because they are in the path of the person's movement. Fits of ictal rage, although infrequent, are characterized by poor awareness, little to no memory for the actions, and lack of complex motor behaviors.

Treatment of emotional seizures (non-epileptic) involves addressing the under-recognized issues of conflict, assisting the individual to regulate mood and affect (with or without medication) and addressing environmental stressors. Labeling such episodes as deliberate and attaching blame to the individual only serves to entrench the behavior.