

Epilepsy in relation to psychiatry

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Our topics

Introduction

**Relationship Between
Epilepsy and Psychiatric
Disorders**

**Psychiatric disorders
associated with epilepsy**



Depression in Epilepsy.

Psychosis of Epilepsy.

**Epilepsy and
personality changes**

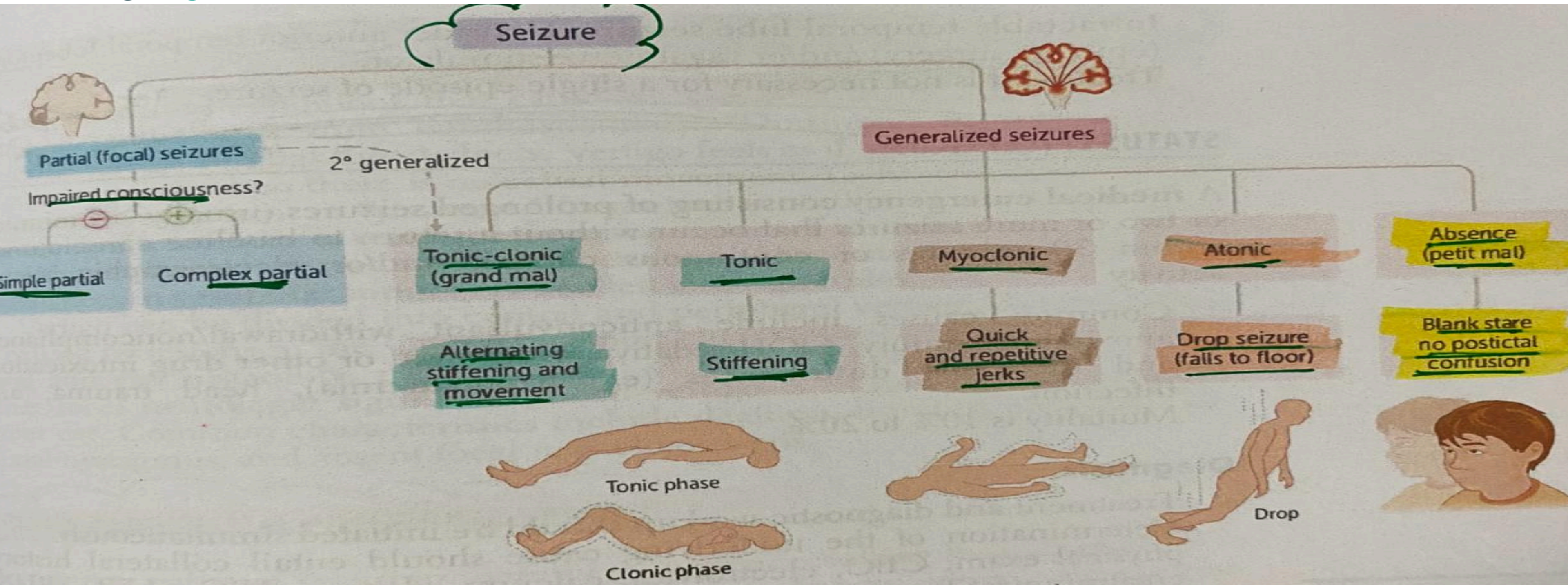


01

Seizure: sudden changes in neurologic activity caused by abnormal electrical activity in the brain (ictus)

02

Epilepsy: disorder of recurrent unprovoked seizure.



Patients with temporal lobe epilepsy more prone to psychiatric disorders due to disturbances in limbic system (amygdala >> emotions) and personality changes

Psychiatric disturbances are common in patients with complex partial seizure than GTCS.



Complex partial seizure involve :

Sensory symptoms

hallucinations of any sensory modality
,olfactory(burning rubber odor) visual
,auditory,gustatory (metallic or other tastes)

Affective symptoms

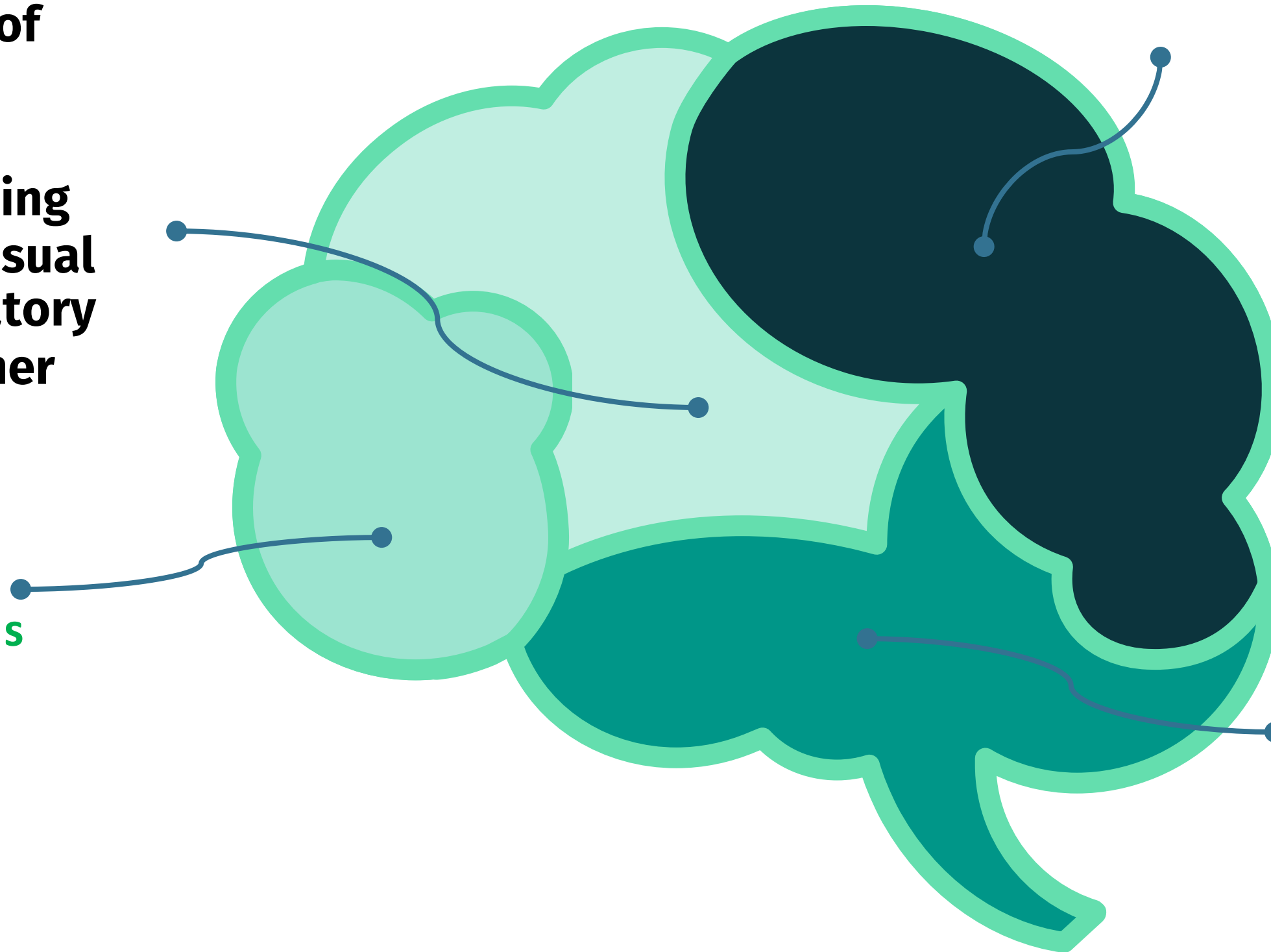
fear and anxiety
although depression .

Behavior symptoms

automatizations are common and may include oral or buccal movements such as lip smacking or chewing, picking behavior or prolonged staring .

Cognitive symptom

Déjà vu (feeling of familiarity) or Jamais vu (feeling of unfamiliarity)



Relationship Between Epilepsy and Psychiatric Disorders

Stigma + over protection by family

Anti epileptic drugs side effects

Age at onset+ chronicity

A bi-directional relationship between psychiatric disorders and epilepsy has been suggested by many scholars.

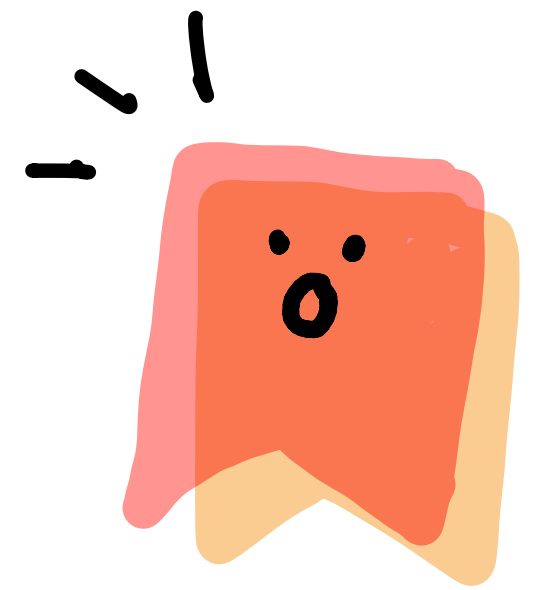
The **causes of psychopathology in epilepsy are Multifactorial:**

Kindling effect

phenomenon where **repeated exposure to** sub-threshold electrical or chemical stimuli gradually lowers the threshold for triggering seizures in the brain. This increased sensitivity can lead to more frequent and severe seizures over time.

Secondary epileptogenesis

Altered receptor sensitivity



20-30% of patients with epilepsy have psychiatric disturbances .



D e p r e s s i o n
50% - 80%
11%-80% in epileptic patients
VS 4.9 %-17% in general population

Psy c h o s i s
2%-9% in epilepsy patients
VS 1% in general population

GAD
15%-25% in epilepsy patients
VS 5.1%-7.2 in general population

Epilepsy with psychosis 2-9%

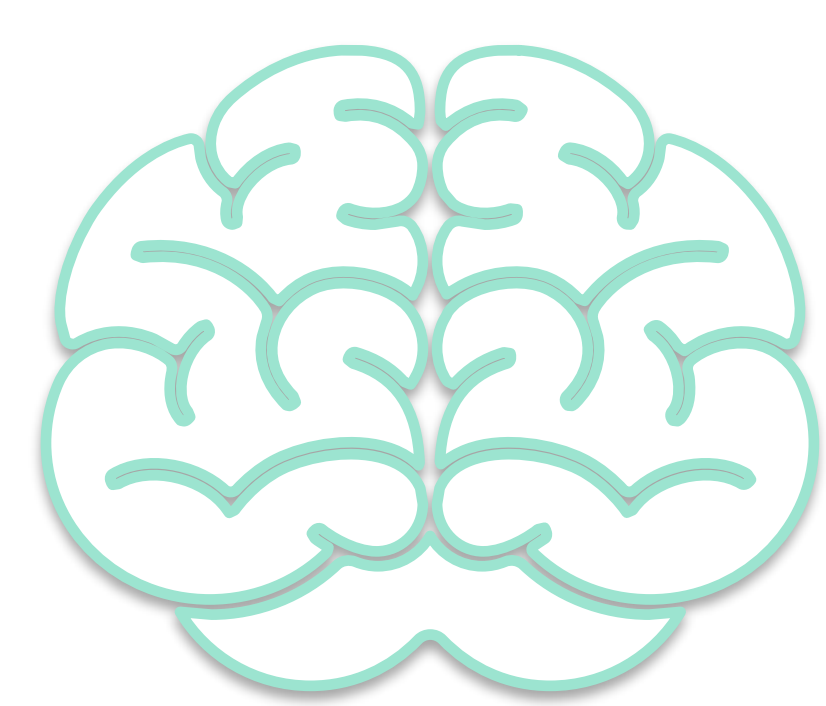
01

**Psychosis is general term
used to describe a distorted
perception of realization**

02

**Poor reality testing may be
accompanied by delusions,
hallucinations, disorganized
thinking/behavior**





DSM-5 criteria for psychotic disorder due to another medical condition include:

- Prominent hallucinations or delusions.
- Symptoms do not occur only during an episode of delirium.
- Evidence from history, physical, or lab data to support another medical cause (i.e., not a primary psychiatric disorder).

Characterized by:

Derealization

01

Disordered thinking

02

Delusion

03

Diorganized speech and thoughts

04

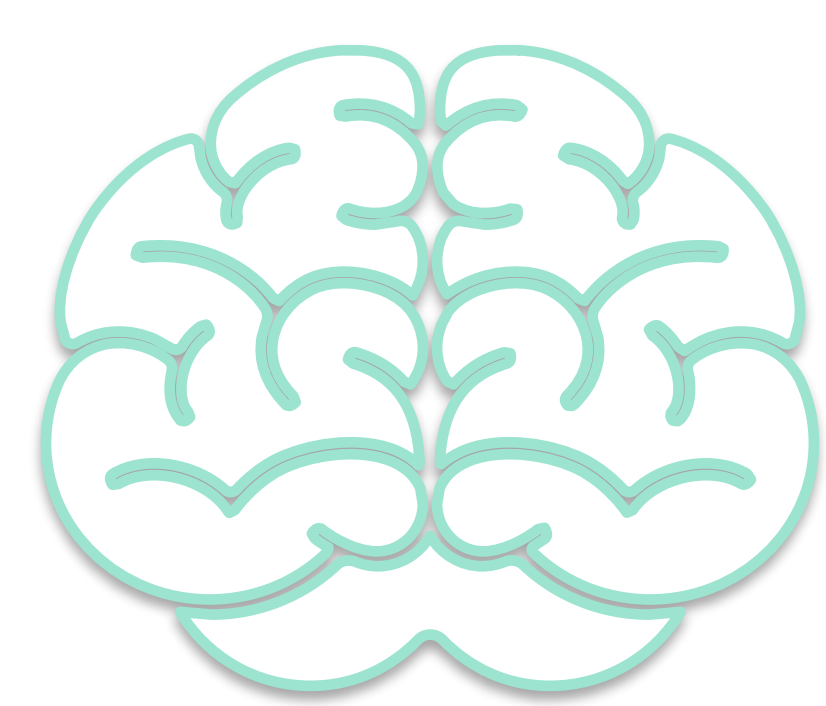
Hallucination

05

Interfere with person's daily life.

06





Psychosis in epilepsy:

1. Ictal psychosis

2. Post ictal *die Zurens* *ictus*

3. Inter ictal

4. Iatrogenic

Less common

- Seen more in status epilepticus, mimic psychosis
- Common features: Hallucinations, paranoid and grandiose thoughts
- Last Hours to days

The treatment of ictal psychiatric disturbances is aimed to seizure control

- Treatment: Anticonvulsant.

Ictal psychosis



Not related to seizure occurrence

- More common when seizure infrequent or fully controlled
- Tends to last days to weeks.
- Either chronic or episodic
- EEG normalize during such episodes generating the term (forced normalization)
- Antipsychotic drugs is effective in such cases.

Inter Ictal psychosis





Forced normalization

-Specific phenomenon characterized by the fact that , with the occurrence of psychotic states, the EEG becomes more normal compared with previous and subsequent EEG findings.

3) Postictal psychosis (PIP)

The prevalence has been estimated to be 6-10% in patients with epilepsy, particularly temporal lobe epilepsy

the mean time between the ictal event and the onset of psychotic symptoms is 24 hours. Which are transient symptoms but can last several weeks.

It can present the form of isolated symptoms or as a cluster of symptoms .(delusions ,hallucinations ,thought disorder and mania)

The **first step** in treatment is Improving seizure control would be the long-term goal then the psychiatric symptom is gradually decrease

Physician can avert the recurrence of PIP by introducing low-dose neuroleptic medication addition to mood stabilizer drug at the first sign of PIP to balance seizure

4) Iatrogenic psychotic disorders

Psychotic disorders, as an expression of a toxic phenomenon, have been reported with most antiepileptic drugs whether standard or new. Psychotic disorders can occasionally follow the discontinuation of AEDs and alcohol withdrawal. Acute withdrawal from benzodiazepines is well known to result in an acute psychotic episode so the withdrawal must be gradual every two weeks.

CLINICAL CHARACTERISTICS OF PSYCHOSIS IN RELATION TO SEIZURE ACTIVITY

	Ictal psychosis	Post ictal psychosis	Peri ictal psychosis	Inter ictal psychosis
Consciousness	impaired	Impaired or normal	Impaired	normal
Duration	Hours to days	Days to weeks	Days to weeks	months
EEG	Status epilepticus	Increased epileptic and Slow activity	Increased epileptic and Slow activity	unchanged
Treatment	Anticonvulsants (i/v)	Spontaneous recovery in many cases	Improved seizure control	Neuroleptic drugs

B) Depression in Epilepsy

Depression is the most frequent type of psychiatric disorder identified in patients with epilepsy.

- **Inter ictal depression**

**Paraictal
form of depression**

- **Iatrogenic form**

The prevalence of **depression** is 10% among patients with less than one seizure per month.

21% in those whose seizure frequency was more than one per month.

4% in seizure-free patients.

- Still, Seizure-free patients off antiepileptic drugs (AED) have a higher risk of psychopathology than general population.

- This suggests that depression and epilepsy may share common pathogenic mechanism

1) Interictal forms of depression



- These are the most common presentation of affective disorders among patients with epilepsy.
- Interictal depression in epilepsy commonly presents as a chronic depression that tends to mimic a dysthymic disorder with an intermittent course.
- In addition to the patients may experience irritability, euphoric mood, fear, and anxiety.
- Symptoms are severe enough to disrupt patients' activities, interpersonal relations, and overall quality of life, and to make them seek treatment.
- Symptoms remit completely with SSRIs in two thirds of patients.

Paraictal expression of depression in epilepsy:

- Paraictal expression can be subclassified into three groups:

a) Ictal depression.

- Ictal depression is the clinical expression of a simple partial seizure in which the depressive symptoms are the predominant signs.
- The most frequent symptoms include feelings of anhedonia, guilt, and suicidal ideation.

b) Preictal depression.

can last a few hours, and sometimes up to a few days before a seizure

c) Postictal depression.

- Postictal symptoms of depression have been recognized for up to 2 weeks, and, at times, have led patients to suicide.
- It is present in about half of patients with consecutive refractory partial seizure disorders.

3) Depression as an iatrogenic process

- Every (AED) can cause psychiatric symptoms in patients with epilepsy.
- Phenobarbital (anti-seizure) can cause depression that may be associated with both suicidal ideation and behavior.
- (Anticonvulsant drug) : Primidone, tiagabine, vigabatrin, felbamate and topiramate are known to cause depressive symptoms.
- (AEDs with mood stabilizing) properties, such as carbamazepine and valproic acid, have a lower possibility to cause depressive symptoms

C) Epilepsy and personality changes

Personality changes in patients with epilepsy are very important and can greatly impact a person's daily activities and quality of life. Commonly seen in uncontrolled epilepsy, and more in Temporal lobe epilepsy. These feelings may be present most of the time, or appear just before, during, or after a seizure. What causes such changes to emotions and behavior? psychosocial circumstances, medication, and seizures effects **Geschwind syndrome**: characteristic personality changes in temporal lobe epilepsy (Circumstantiality, hypergraphia, hyposexuality, hyper religiosity, hyper morality, deepened emotional and cognitive response)

In 1975, Stephen Waxman and Geschwind described a characteristic personality syndrome in temporal lobe epilepsy patients called : Geschwind syndrome

