# 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.

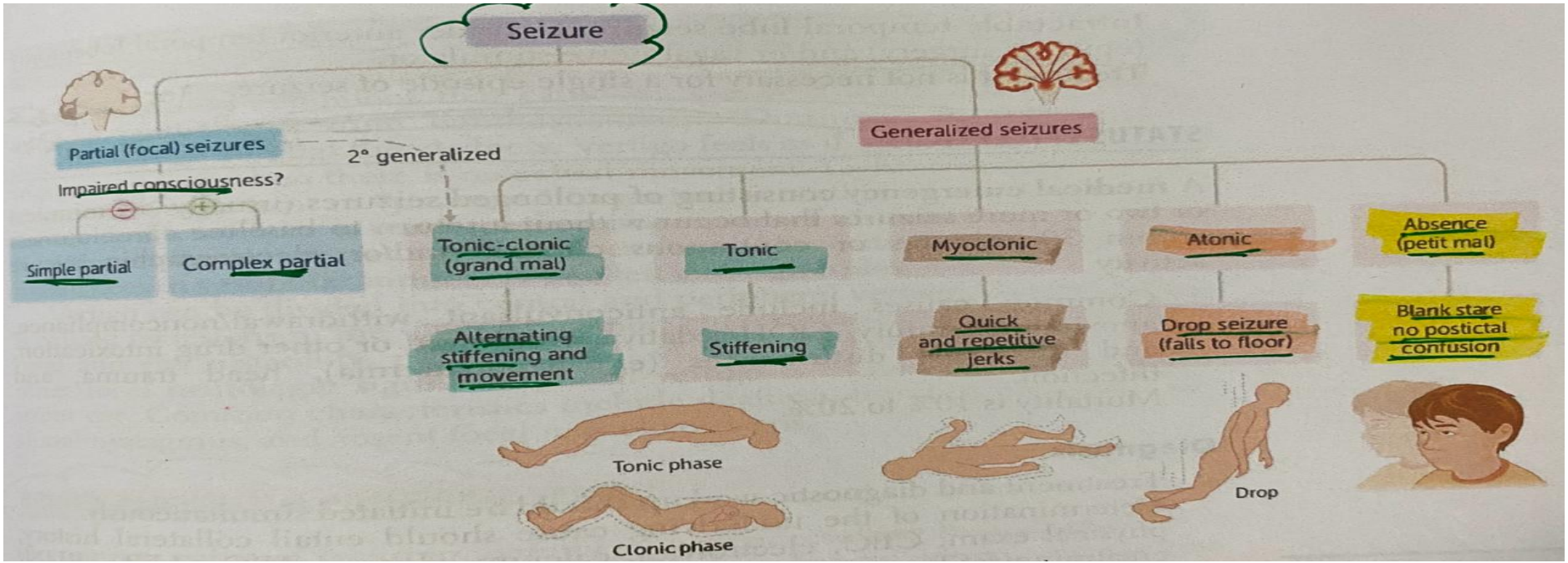
Epilepsy and personality changes

01

**Seizure: sudden changes in neurologic activity caused by abnormal electrical activity in the brain.**

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.**

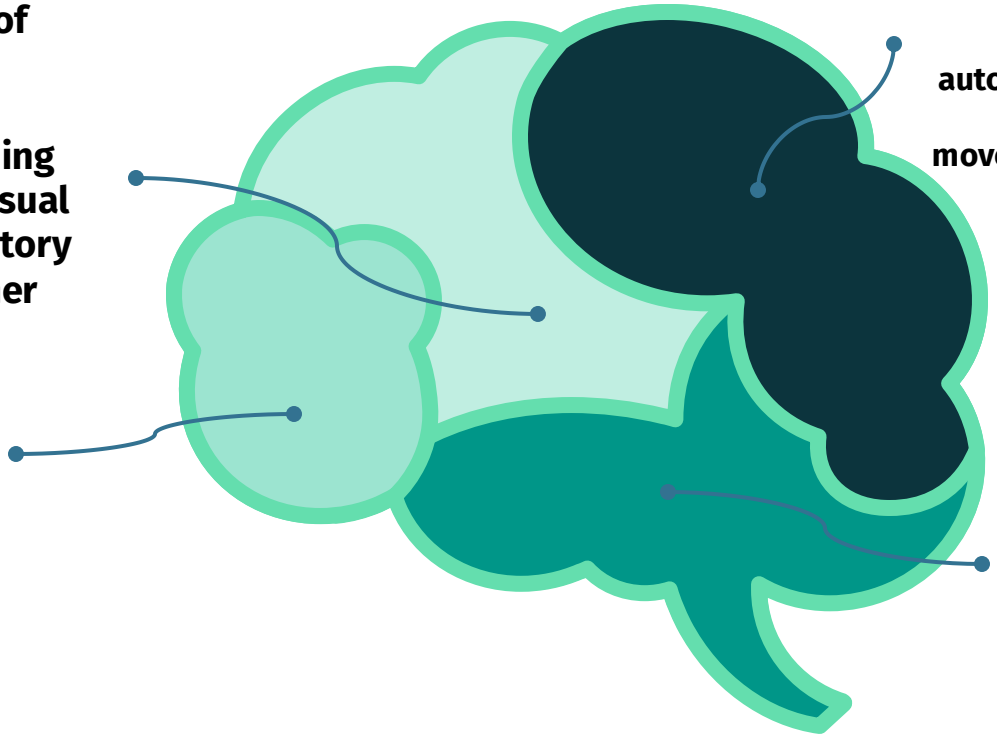
# Complex partial seizure involve :

## Sensory symptoms

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

## Behavior symptoms

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



## Affective symptoms

fear and anxity although depression .

## Cognitive symptom

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

# Relationship Between Epilepsy and Psychiatric Disorders

A bi-directional relationship between psychiatric disorders and epilepsy has been suggested by many scholars. The causes of psychopathology in epilepsy are Multifactorial:

- Stigma + over protection by family
- Anti epileptic drugs side effects
- Age at onset+ chronicity

**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 .

## Depression

11%-80% in epileptic patients VS 4.9 %-17% in general population

## Psychosis

2%-9% in epilepsy patients VS 1% in general population

## GAD

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

## personality changes

# Depression in epilepsy

## Depressive Disorder Due to Another Medical Condition

### Diagnostic Criteria

A. A prominent and persistent disturbance in mood that predominates in the clinical picture and is characterized by depressed mood or markedly diminished interest or pleasure in all, or almost all, activities.

B. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct pathophysiological consequence of another medical condition.

C. The disturbance is not better explained by another mental disorder (e.g., adjustment disorder, with depressed mood, in which the stressor is a serious medical condition).

D. The disturbance does not occur exclusively during the course of a delirium.

E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

# Depression in Epilepsy

## Depression as an iatrogenic process.

Due to anti epileptic drugs side effecs

## Para ictal symptoms

a) Ictal depression.
b) Preictal depression.
c) Postictal depression.

## interictal symptoms

Between seizurs

***Paraictal expressions of depression in epilepsy***

01 **Pre-ictal depression**

present as a dysphoric mood that precedes a seizure by several hours to days ,it becomes more accentuated during the 24 hours prior to the seizure and remits postictally or persists for a few days after the seizure

02 **Ictal depression**

Such mood changes typically are brief, The most frequent symptoms include feelings of anhedonia, guilt, and suicidal ideation

03 **Post-ictal depression**

Depressive symptoms can outlast the ictus for up to 2 weeks,and, at times, have led patients to suicide.

# 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 (Persistent depressive disorder which is milder than MDD)with an intermittent course.**

**Symptoms remit completely with sertraline(SSRI) in two thirds of patients**

**Symptoms are severe enough to disrupt patients' activities, interpersonal relations, and overall quality of life, and to make them seek treatment**

## Depression as an iatrogenic process


Every AED can cause psychiatric symptoms in patients with epilepsy.


Primidone, tiagabine, vigabatrin, felbamate and topiramate are known to cause depressive symptoms.


Phenobarbital can cause depression that may be associated with both suicidal ideation and behavior.


AEDs with mood stabilizing properties, such as carbamazepine and valproic acid, have a lower possibility to cause depressive symptoms.

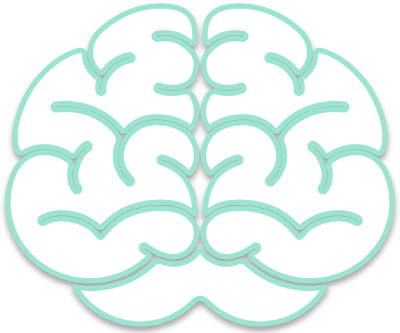
**Epilepsy with psychosis**
**2-9%**

01

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

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

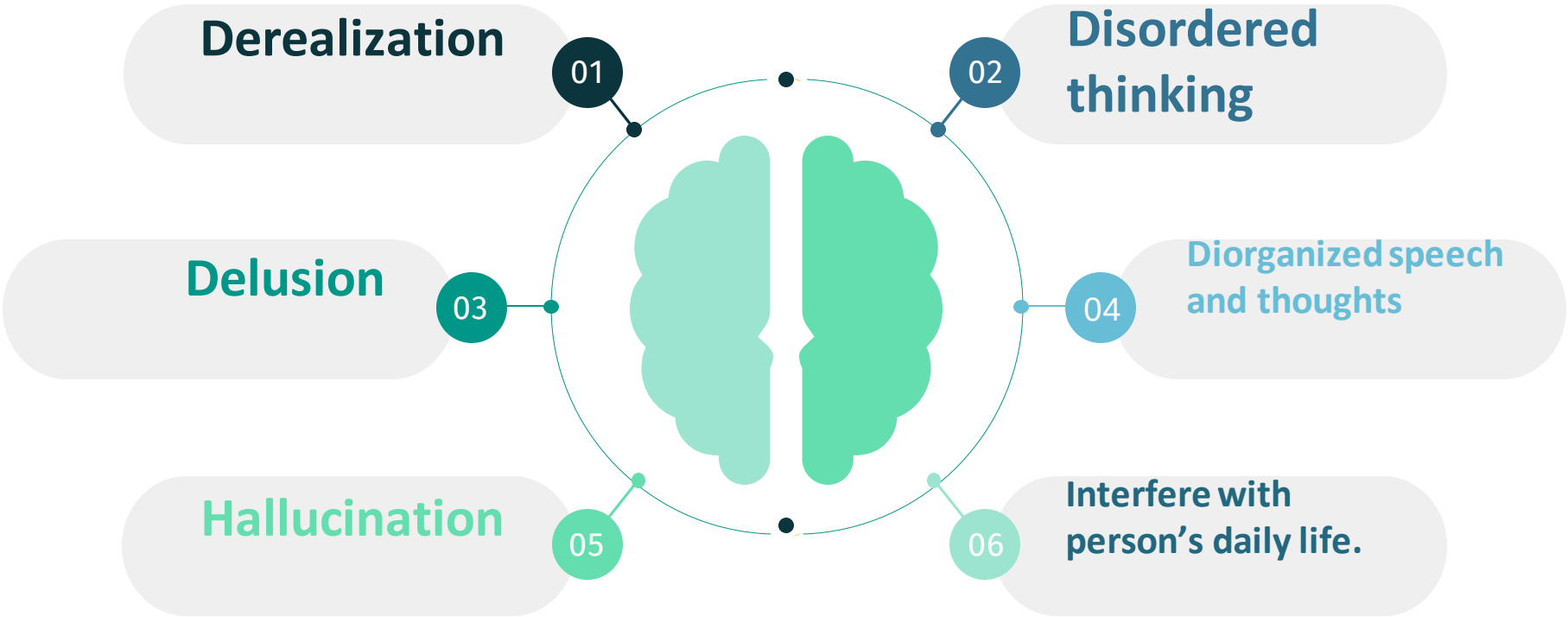
02

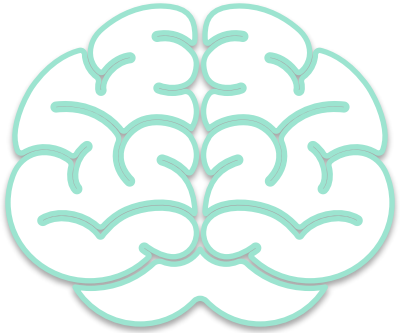


**DSM-5 criteria** for psychotic disorder due to another medical condition include:

- 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:**





**Psychosis in epilepsy:**

1. **Ictal psychosis**
2. **Post ictal**
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
Treatment: AntiConvulsant

## Ictal psychosis

Most common.
-Psychosis after seizure, mainly 24h post seizure.
-Last Days to weeks
At least 15H and less than 2months
-No evidence of psychosis in previous 3months, recent head trauma, recent intoxication.
Spontaneous recovery in most cases.
Low dose of antipsychotic is effective.

## Post 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 ECG findings.

# 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 |

# Iatrogenic psychotic disorders

- Expression of a toxic phenomenon that have been reported with most of AEDs .
- Can occur follow the discontinuation of AEDs
- Acute withdrawal of BNZ is well known to result in acute psychotic episodes

# 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 lif

These feelings may be present most of the time, or appear just before, during, or after a seizure



Commonly seen in uncontrolled epilepsy , and more in Temporal lobe epilepsy.

What causes such changes to emotions and behavior? psychosocial circumstances, medication, and seizures effects

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