

NEUROLOGY

SEIZURE TYPES

Focal seizures (Partial)

A. Simple partial seizures

- **Consciousness is not impaired**
- Affect only a small region of the brain, often the temporal lobes or hippocampi.
- Wide variety of symptoms e.g. emotional, altered sensation, disorientation, speech disturbance, déjà vu
- Usually remembered in detail
- May precede larger seizures, usually resulting in a complex partial seizure or a tonic-clonic seizure. In this case they are often known as an aura.

B. Complex partial seizures

- **Previously known as temporal lobe** or psychomotor seizures
- **Can arise from any lobe, unilateral**
- **Often have an aura**
- Consciousness is impaired but they do not generalise
- Person may display automatisms e.g. lip smacking, chewing or swallowing
- Often post- ictal
- May present as:
 - Simple partial onset, followed by impairment of consciousness
 - With impairment of consciousness at onset

C. Partial seizures evolving to secondarily generalized seizures

- Simple partial seizures evolving to generalized seizures
- Complex partial seizures evolving to generalized seizures
- Simple partial seizures evolving to complex partial seizures evolving to generalized seizures

Generalized seizures

A. Absence seizures (Petit mal)

- Primary symptom is impairment of consciousness
- Abrupt onset, patient stops whatever they were doing
- Lasts <30 seconds, stops as abruptly as it started and not usually post- ictal
- Can have a variety of associated symptoms e.g. myoclonus, automatisms, autonomic response
- **Carbamazepine, Phenytoin, Phenobarbital and GABA agonists e.g. Gabapentin should not be used**

B. Myoclonic seizures

C. Clonic seizures

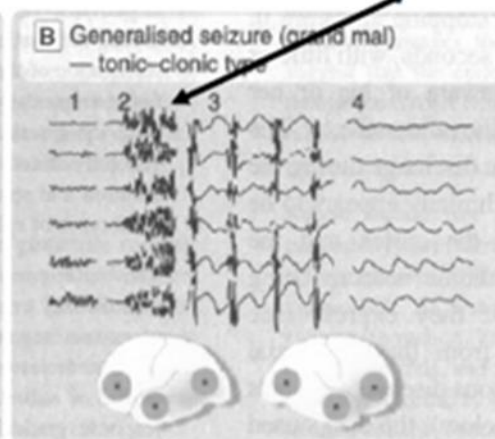
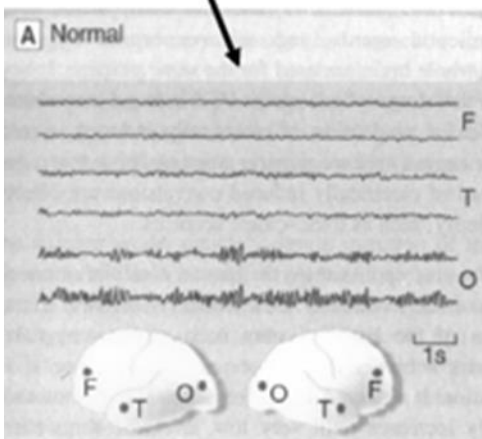
D. Tonic seizures

E. Tonic-clonic seizures (Grand mal)

- Entire brain is affected
- Most common seizure type
- Two phases:
 - **Tonic phase:** patient loses consciousness, skeletal muscles suddenly tense causing rigid flexion/ extension of limbs, lasts only a few seconds
 - **Clonic phase:** patient's muscles contract and relax rapidly and violently, eyes usually roll back, may tongue bite, become cyanosed and be incontinent
- Usually post- ictal period

F. Atonic seizures

EEG Records in Epilepsy



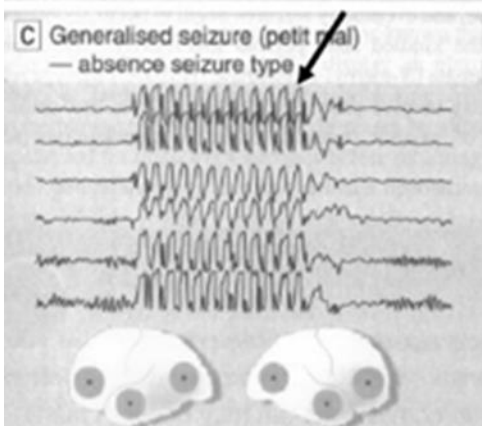
B: tonic-clonic

1: normal

2: tonic phase

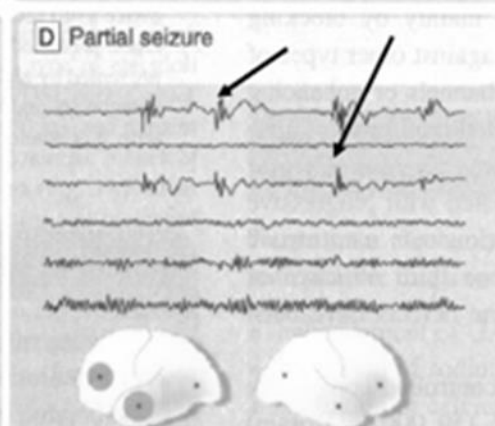
3: clonic phase

**4: postconvulsive
coma**



C: Absence seizure

with sudden brief
episodes of 3/s
Spike & wave
discharge



D: Partial seizure

Synchronous
abnormal discharge
in L F & LT lobes