

Epilepsy

- It is a condition due to too many brain cells over excited in a given time
- Group of disorder characterized by paroxysmal cerebral dysrhythmia manifesting as brief episodes of seizures
- Types :
 - Generalized – neuronal overactivity widespread
 - Generalised tonic clonic seizures (GTCS) – grand mal
 - Absence seizures – petit mal
 - Atonic seizures
 - Myoclonic seiures
 - Infantile spasms
 - Partial – neuronal overactivity in one part of brain
 - Simple partial – without loss of consciousness
 - Complex partial –with loss of consciousness

- What are the unwanted effects with their use?

- Drowsiness, dizziness and ataxia, vertigo
 - Severe mental and motor disturbances
 - Water retention – hyponatraemia
 - Gastrointestinal and cardiovascular side effects
 - Bone marrow depression (neutropenia), hypersensitivity (rashes, photosensitivity, hepatitis)
 - Acute intoxication – coma, convulsion, collapse
- Hepatic enzyme induction
 - accelerates the metabolism of many drugs – phenytoin, oral contraceptives, warfarin and corticosteroids

Ethosuximide

- MoA
 - Reduction of propagation of abnormal electrical activity in brain
 - By inhibiting T type Ca^{2+} channels
 - Blocks high voltage current
- Use
 - Effective in treatment of absence seizures
- Side effects
 - Nausea and anorexia, lethargy and dizziness
 - Precipitate tonic–clonic seizures in susceptible patients
 - Rare – severe hypersensitivity reactions