

Classification of epileptic seizures

Epileptic seizure is a symptom of epilepsy; and can also occur in number of diseases.

- The type of seizure is determined by: patient history (anamnéza), observation, EEG
- Determining the type of seizure can help in localising the epilepsy in the central nervous system, to search for etiology of the seizure imaging methods are used.
- **Primary epilepsy** – It has a strong genetic predisposition, with no underlying structural, metabolic or pathological abnormality. There are no deviations from the norm in the period between seizures.
- **Secondary (symptomatic) epilepsy** – This type is accompanied by other CNS diseases, prognosis for secondary epilepsy is worse than primary epilepsy^[1]

Partial epileptic seizure (focal, non focal)

- It is localization of the epileptic discharge, which can spread to the surroundings or can secondarily generalise; partial seizures are a manifestation of a localised (focal) brain lesion
- always secondary (tumor, inflammation)^[1]

Partial simplex seizure

- consciousness is preserved, but patient has symptoms:
 - **motor** (tonic / clonic) – 1 limb segment, Jacksonian motor epilepsy, aversive seizures (from gyrus precentralis)
 - **sensory** – pseudo-hallucinations, illusions, paresthesia, pain, Jackson's sensitive epilepsy (from the post-central gyrus and sensory cortex)
 - **autonomic** – TF, DF, nausea, redness, pain
 - **psychological** – dreamy state, déjà vu, depersonalization (from the limbic system and cortex)^[1]

Partial seizure with complex symptomatology

- consciousness impaired: (temporal epilepsy) – aura (uniform crisis, depersonalization, hallucinations / delusions, abdominal aura), seizure (absent gaze, stereotypic movements)
 - **loss of consciousness** follows a partial simplex seizure
 - **loss of consciousness from the beginning**^[1]

Partial seizure secondarily generalised

- sensations → to brain → loss of consciousness → thalamocortical circuit → to both the hemispheres
- prodrome → aura → ictus → postparoxysmal period
 - **partial simplex seizure with secondary generalisation**
 - **complex partial seizure with secondary generalisation**
 - **partial simplex to complex seizure with secondary generalisation**^[1]

Generalised epileptic seizure

- bilateral localised seizure, symmetrical without focal onset
- the beginnings of epileptic discharges are localised in the meso-diencephalic reticular formation and radiate diffusely throughout the brain
- with convulsions (convulsive) / without convulsions (non-convulsive)
- disorder of consciousness seizure states without aura, primary and secondary
- The typical course has 3 phases: Pre seizure period – *aura* (maybe absent); *seizure* itself, which can last for several minutes; then the patient falls asleep
 - **absence** (petit mal): „shock“ (squinting, twitching eyelids), paleness / flushing, EEG: spike / slow waves
 - **typical absence**
 - **atypical absence**
 - **myoclonic seizures** – fast twitch muscles. convulsions without loss of consciousness, EEG: spike discharge
 - **tonic seizure** (*West Syndrome*) – tonic spasms of trunk and flexion of upper limb muscles and extension of lower limb muscles, in children, mental retardation and falls.
 - **clonic seizures** (*childhood and Janz's juvenile myoclonic epilepsy*) – less frequency of twitches than myoclonus, loss of consciousness, children
 - **atonic seizure** (astatic seizure, *Lenox-Gastaut syndrome*) – loss of postural muscle tone → sudden fall to the ground, may not be a disturbance of consciousness
 - **tonic-clonic seizure** (grand mal) – loss of consciousness, fall cyanosis, salivation, pupillary areflexia, (1) *tonic phase* (EEG: high symmetrical spikes) → (2) *tonic-clonic phase* (↑BP, TF, tonic contractions and short relaxations, EEG: high slow waves / spikes and wave complexes) → (3) *relaxation phase* (muscle flaccidity and incontinence, EEG: isoelectric line) → awakening and confusion / sleep^[1]

Unclassified seizures

Status epilepticus

- 90 % of uncomplicated generalized seizures that last less than 2 minutes and rarely upto 5 minutes, i.e. it is necessary to treat each seizure lasting 5 or maximum 10 minutes as status epilepticus (SE).

Mortality of generalised tonic-clonic SE is 10–20 %.

- consciousness is impaired between seizures → brain damage may occur
- State of emergency! (exhaustion, ↑BP)^[1]
- accompanied by fever, leukocytosis, acidosis and there is a risk of exhaustion and collapse of organism, cerebral hypoxia from respiratory hypoventilation and cerebral edema

Links

Related articles

- Epilepsy
- Epilepsy (pediatrics)
- Epilepsy/PGS
- Epilepsy/PGS (VPL)
- Status epilepticus (pediatrics)
- Surgical treatment of epilepsy
- Antiepileptic drugs

External Links

- Template:Akutně

References

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Kategorie:Vložené články Kategorie:Neurologie Kategorie:Neurochirurgie Kategorie:Patologie