

How to distinguish seizures from non-epileptic manifestations

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Prerequisite = Knowledge of clinical features and differences of various paroxysmal events

First step in the diagnostic process = *Assessment of clinical features*

- Careful history taking from patients and witnesses
- Home video recordings

Important characteristics of semiology

- signs preceding the event
- onset/offset
- duration, type, sequence and continuity of ictal behaviour
- precipitating factors and circumstances of the attacks
- presence or absence of prodromes
- postictal period

High misdiagnosis rate of epilepsy and non-epileptic events

Why?

- Significant overlap in clinical features of epileptic seizures with other conditions
- Deficient patients' history and witness description
- Events might not have been witnessed
- Usually, no core symptoms of paroxysmal events are present during consultation

Consequences of misdiagnosis:

- Lag of sufficient treatment or inadequate therapy
- potential side effects of antiepileptic drugs
- social implications (employment, driving permission, patients' lifestyle)

Important considerations

- No single semiological feature will differentiate between epileptic seizures and non-epileptic events
- Differential diagnosis of paroxysmal events is specific to different age groups
- Syncope is often misinterpreted as seizure due to convulsions
- Psychogenic non-epileptic seizures (PNES) are among the most frequent non-epileptic paroxysmal events in adolescents and occur in any age group including children younger than 10 years and the elderly.
- There is a 10% comorbidity of PNES and epilepsy
- Video-EEG might be necessary for correct diagnosis