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Non-Epileptic Paroxysmal States in Epilepsy

Anna Voitiuk[1,*], T. Litovchenko[1], T. Markova[2]

[1]Kharkiv Medical Academy of Postgraduate Education, Department of Neurology, Kharkiv/Ukraine

[2]Kharkiv Railway Clinical Hospital No1 of Branch of HC, JSC, Ukrzaliznytsia, Kharkiv/Ukraine

[*]**Corresponding author:** Anna Voitiuk, Kharkiv Medical Academy of Postgraduate Education, Department of Neurology, Kharkiv/Ukraine, Tel: + 380509081085; E-mail: a_vojtyuk@yahoo.com

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Introduction

Differential diagnosis of epileptic and non-epileptic paroxysmal disorders is one of the most difficult diagnostic problems in Epileptology. A frequent combination of epileptic and non-epileptic seizures in a patient makes the diagnosis particularly difficult. As a rule, 30% of patients with verified epilepsy have non-epileptic seizures as well (both psychogenic and organic ones). Non-epileptic paroxysmal events may mimic epilepsy. The duration, place, timing of the attacks, and state of conciousness may confuse pediatricians about the diagnosis of epilepsy and non epileptic paroxysmal events [1-4].

Differential diagnoses of paroxysmal event may include:

- Syncope
- Cardiogenic
- Cough
- Migraine (confusional): Time of course is usually longer than most complex partial seizures; EEG is normal during event.
- Metabolic disorders: Hypoglycemia, hypocalcemia, and rapid sodium shifts can all cause non-epileptic seizures.
- Paroxysmal vertigo
- GER in infancy/childhood: Some patients may have actual seizures due to anoxia when the child aspirates. More commonly, they have chewing, mouthing movements when refluxing that look like complex partial seizures. This is easily distinguished using EEG and pH probe monitoring and resolves with anti-reflux medications. May patients also have arching with torticollis and dystonic posturing due to reflux, particularly observed in neurologically abnormal children (Sandifer's syndrome).

The symptoms of epileptic seizures are diverse. As a result, disorders that might be considered in the differential diagnosis will vary depending on the patient's specific clinical presentation. Clearly, not all of these disorders are considered in any one patient. Nonepileptic paroxysmal events that can be mistaken for epilepsy also differ significantly by age group.

The purpose of the study is to determine the frequency and nature of non-epileptic paroxysms in patients with long-term epilepsy.

Materials and Methods

The studies were conducted on the basis of the analysis of clinical symptoms and instrumental studies. EEG, EEG-video monitoring and MRI were used as the screening methods.

Results

The analysis of the data of 300 patients aged 20 to 65 with verified epilepsy revealed that in 78 patients with long-term epilepsy some paroxysmal non-epileptic states were observed: conversion, abstinence paroxysms, syncope conditions, panic attacks, sleep disorders [5,6].

In patients aged 18 to 25 conversion paroxysms (5 persons, 6%) and sleep disorders (4 persons, 5%) prevailed. Young aged patients (25 to 44 years) had paroxysmal states (30 persons, 39%), insomnia (8 persons, 10%) and abstinence paroxysms (8 persons, 10%). For the patients aged 45 to 60 panic attacks (23 people, 30%) were more common.

In patients with syncope condition the EEG revealed some bilaterally synchronous flashes of theta waves on the background of the dominant alpha-rhythm.

In patients with panic attacks, along with routine EEG, EEG-video monitoring was also carried out. The EEG-video monitoring showed certain strengthening of hemispheric asymmetry, alpha rhythm index decrease and increase in beta1 rhythm in the right hemisphere which was more pronounced in the frontal and temporal leads.

Conclusion

Long-term epilepsy can lead to the development of non-epileptic paroxysmal states which, on the one hand, aggravate the disease and, on the other, make the diagnosis of "epilepsy" disputable. Misdiagnosis of epilepsy often has disastrous consequences for patients resulting in the restriction of social activity and incorrect treatment.

Reference

1. Stafstrom CE, Carmant L (2015) Seizures and epilepsy: an overview for neuroscientists. Cold Spring Harb Perspect Med 5: a022426.

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2. Tatlı B, Güler S (2017) Non epileptic paroxysmal events in childhood. Turk Pediatr Arsivi. 52: 59.

3. Mellers JD (2005) The approach to patients with "non-epileptic seizures". Postgrad Med J 81: 498-504.

4. Reuber M, Elger CE (2003) Psychogenic nonepileptic seizures: review and update. Epilepsy Behav 4: 205-216.

5. Rowan AJ (1997) Diagnosis and Management of Nonepileptic Seizures. The Comprehensive Evaluation and Treatment of Epilepsy 1997: 173-183.

6. https://www.uptodate.com/contents/nonepileptic-paroxysmal-disorders-in-adolescents-and-adults