

## Euro Dementia Congress 2019: Non-Epileptic Paroxysmal states in Epilepsy - Voitiuk A. - 1Kharkiv Medical Academy

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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).

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

Non-epileptic seizures (NES), otherwise called non-epileptic occasions, are paroxysmal occasions that seem like an epileptic seizure yet don't include irregular, cadenced releases of neurons in the cerebrum. Side effects may incorporate shaking, loss of cognizance, and loss of bladder control.

They might possibly be brought about by either physiological or mental conditions. Physiological causes incorporate blacking out, rest issue, and heart arrhythmias. Mental causes are known as psychogenic non-epileptic seizures. Conclusion might be founded on the historical backdrop of the occasion and physical assessment with help from heart testing and an EEG.

A wide exhibit of marvels could possibly take after epileptic seizures, which may prompt individuals who don't have epilepsy being misdiagnosed. Undoubtedly, a noteworthy level of individuals at first determined to have epilepsy will later mend. In one investigation, most of kids alluded to an auxiliary facility with "fits, swoons and entertaining turns" didn't have epilepsy, with syncope (blacking out) as the most widely recognized alternative. In another examination, 39% of kids alluded to a tertiary epi-

lepsy community didn't have epilepsy, with gazing scenes in slow-witted youngsters as the most well-known alternative. In grown-ups, the figures are comparable, with one examination revealing a 26% pace of misdiagnosis.

Separation of a non-epileptic assault from an epileptic seizure incorporates the patient keeping their eyes shut and once in a while causing themselves hurt.

Between January 1989 and December 1995, 883 patients <18 years old experienced video-EEG checking in the PEMU at the Cleveland Clinic Foundation. Among these patients, 199 (22.5%) were released with a last finding of PNEs. PNEs were characterized as paroxysmal changes in conduct, not related with a seizure design on scalp EEG chronicles. Patients were checked from 1 to 5 days, contingent upon the quantity of occasions. In the event that no unconstrained occasions happened during this period, an endeavor was some of the time made to instigate a scene by recommendation. In 134 patients, we prevailing with regards to catching their run of the mill spells; in the staying 65 patients, PNEs were analyzed based on clinical history and delayed EEG accounts more than a few days that didn't show any epileptiform releases. Occasions with symptomatology reliable with epileptic seizures that didn't show EEG changes, (for example, atmospheres or mesial frontal projection seizures) were prohibited. We investigated the medical clinic graphs and tapes of 134 patients in whom in any event 1 run of the mill occasion was caught during nonstop video-EEG observing. This included 1 patient with factitious turmoil (Munchausen Syndrome as a substitute) in whom no occasions were caught and the conclusion was reached after

an itemized clinical and social work assessment. Patients with archived PNEs represented 15.2% of all patients checked in our PEMU. Every single recorded occasion were affirmed with a parent or gatekeeper to be the youngster's normal spells. The patient was met during and after their scenes by technologists, medical caretakers or doctors in the PEMU utilizing verbal, visual, or material improvements to stand out enough to be noticed. A patient was decided to be lethargic when every such measure neglected to get any reaction. More seasoned kids were likewise approached to review test words and things introduced to them during recorded occasions. In patients firmly associated with having psychogenic seizures, when no scenes were seen more than at least 4 days of recording, we endeavored to incite such a scene in the wake of getting parental assent. These strategies included lack of sleep, verbal recommendation, hyperventilation, photic incitement, or potentially the infusion of saline intravenously. A corresponding conclusion of epilepsy was made if an epileptic seizure was additionally caught during the video-EEG observing or the depiction of different occasions was decided to be profoundly dubious for an epileptic seizure given the nearness of interictal epileptiform releases on EEG. All EEG and video portions of these scenes were dissected by one of the creators (M.C.) and furthermore evaluated with one of the senior creators (P.K. what's more, E.W.).

In view of the pathophysiology of the recorded occasions, we partitioned the PNEs into 2 gatherings: mental disarranges and those that were either physiologic or natural. Mental disarranges were analyzed after a careful assessment by a youngster therapist at our establishment, utilizing the rules recorded in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition.<sup>16,17</sup> Psychogenic seizures are partitioned into: a) somatoform or transformation issue; b) dissociative clutters; c) tension issue; d) issue with crazy indications; e) factitious turmoil and ma-

lingering; and f) fortified personal conduct standards.

**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.

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.

**Keywords:** paroxysmal states, long-term epilepsy, non-epileptic paroxysms, rhythms of EEG.