

Analysis of Patients with Fainting Attack and Psychogenic Non Epileptic Seizure in a Tertiary Hospital in Nepal

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Received, June 4, 2008

Accepted, June 25, 2008

Fainting attack or temporary loss of consciousness may be caused by impaired cerebral perfusion (syncope), cerebral ischemia, migraine, epileptic seizures, metabolic disturbances, sudden increases in intracranial pressure, sleep disorder, or psychogenic manifestation.²

Many such patients are diagnosed as having “seizure disorder” and anti-epileptic drugs (AEDs) are immediately prescribed without much workup. Many may simply have psychogenic non epileptic seizure (PNES)^{1,7,10}, which is as common as 33 persons in 1 lakh of the population. Up to 10% of out-patients have PNES.³⁻⁵ We investigated patients in our hospital who presented with loss of consciousness with a view of finding out the “actual cause” of fainting attack, with a special focus on the proportion of PNES in order to prevent misuse of AEDs.

Temporary loss of consciousness (LOC) may be caused by many factors. Many patients with LOC are misdiagnosed as suffering from “seizure disorder.”

This prospective clinical study was designed to find out the different causes of “fainting attack” and the proportion of psychogenic non-epileptic seizure (PNES).

All patients with history of LOC from March 2007 to March 2008 were evaluated. Obvious generalised tonic clonic seizure was excluded, PNES being the diagnosis of exclusion. Patients were subjected to electro encephalography (EEG) and computed tomography (CT) scan of head only in doubtful cases.

A total of 52 patients were included in the study. The mean age of the patients was 22.5 years. Twenty six (50%) patients had seizure disorder; out of this 18 patients were males and eight females. PNES was seen in 20 (36%) patients; 12 (60%) were females and eight (40%) were males. 40% of these PNES were unnecessarily taking AEDs.

In a tertiary hospital set up in Nepal, only 50% of fainting attacks were due to true seizure. Therefore, PNES needs to be excluded in patients presenting with loss of consciousness before considering treatment with AEDs, especially if the patient is a young female.

Key words: antiepileptic drug, fainting attack, pseudo seizure, psychogenic non epileptic seizure

Once AEDs is started, it is very difficult to get rid of it. Moreover, use of AEDs and the diagnosis of epilepsy are social stigmas. PNES is paroxysmal episodes of altered behavior that superficially resemble epileptic seizures but lack the expected electroencephalography (EEG) epileptic changes. Often a correct diagnosis can be made only after witnessing the patient’s clinical episodes.⁸

PNES superficially resembles tonic-clonic seizure with abrupt onset occurring in the presence of other people and do not occur during sleep. Motor activity is uncoordinated, urinary incontinence is rare, physical injury rare, tend to be more prolonged and pelvic thrusting is a common manifestation.⁸ Postictally, there are no focal neurological signs, headache, or pathological reflexes. It is mostly seen in females^{7,10} and remains normal.

The main objectives of this prospective clinical study are

1. To find out the different causes of loss of consciousness in patients presenting with “fainting attack”
2. To find out the prevalence of PNES (Psychogenic Non-epileptic Seizures) or pseudo seizure
3. To find out the proportion of AED misuse in PNES

Materials and Methods

All patients with history of LOC presenting to our hospital (Katmandu, Nepal) were examined from March 2007 to March 2008. A thorough history was taken by the authors. Patients were included on the basis of history of LOC that do not appear to have generalized tonic clonic seizure.

The category of seizure disorder, therefore, includes those patients who, by preliminary history and examination, do not have generalized tonic clonic seizure but were diagnosed to have seizure disorder after investigation.

Patients with transient LOC especially while standing, with irregular heart rates and heart blocks, with a typical history such as fainting attack following micturation and with normal computed tomography (CT) and EEG were considered to have syncopal attack.

PNES or pseudoseizure was the diagnosis of exclusion. EEG and CT scan were not done in patients with obvious history of transient ischemic attack (TIA) or patients with metabolic causes.

The patients were subjected to EEG and CT scan of the brain only in doubtful cases of seizure, pseudo seizure, and syncopal attack. The EEG and CT were personally read by the authors and doubtful CT was reconfirmed by the radiologist. The data were collected and analyzed for male and female distribution; they were categorized into 4 different categories of (a) seizure disorder, (b) PNES (pseudoseizure) (c) Syncopal attack, or (d) miscellaneous group. Special attention was paid to the PNES group for evaluating AED misuse. The data was analyzed with SPSS statistical tool.

Results

A total of 52 patients were included in the study. Twenty eight (55%) were males and 24 (45%) were females. The mean age of the patients was 22.5 years; the mean age of male and female patients being almost same, 22.7 years and 22.5 years respectively. LOC was, therefore, seen to occur more in the younger age group.

PNES was seen in a large number of patients presenting with LOC, i.e., 20 (38.5% of total cases), comparatively more in female i.e. 12 out of 20 (60%). Up to 40% of patients with PNES were found to be taking AEDs though almost all patients with pseudoseizure can be treated by antidepressants alone.

50% patients presenting with LOC had seizure disorder; out of this 18 were males and eight females. Seizure was

seen to be completely controlled with various AEDs in 14 patients.

Discussion

This prospective clinical study was designed to analyze different causes of patients presenting with LOC in a tertiary referral hospital of Nepal. This study was also designed to highlight the proportion of PNES among those with fainting attacks and the misuse of AEDs.

Only 50% of the patients presenting with LOC to our tertiary hospital had true seizure disorder. It is interesting to note that more than a third (38.5%) of patients with LOC had PNES and up to 40% of them were taking AEDs.

The prevalence of PNES is 33 cases per 100,000 in the general population. It comprises 5- 10% of total outpatient epilepsy population.^{3,5} Our study showing a 38% of total cases had PNES could be because of the fact that we did not include all cases of seizure in the first instance. In fact obvious generalized tonic clonic seizure cases were excluded from the study in order to determine the proportion of patients with pseudo seizure from patients presenting with fainting attack.

As consistent with other studies such as that of Lesser and Rosenbaum,^{7,11} PNES is seen predominantly in females and usually in the younger age group. Literatures have reported a mean period of 7.2 years between manifestation and accurate diagnosis of PNES.¹⁰ Because of the delay in diagnosis many patients with this event experience significant morbidity from inappropriate treatment for epileptic seizure including but not limited to adverse effects from the AEDs. We have not looked into the period of misuse of AED since this was not our aim. However, this issue needs to be addressed in the future because AEDs are loosely and freely used by our medical practitioners as shown by our study.

The estimates of coexistence of epilepsy and psychogenic non-epileptic seizures vary from 5% to more than 60% , depending on the study setting and diagnostic criteria.⁶ Up to 50% cases of drug refractory status epilepticus are due to psychogenic non epileptic attacks.³ PNES can exist along with epilepsy.

The present study, however, did not look into this aspect; some of the PNES being well controlled with AED could possibly be a coexistence of seizure disorder.

This suspicion could neither be proved nor disproved as our study was not that critical to find out the coexistence of PNES with seizure disorder. The added AED in such instance could also have a placebo effect. On the contrary, it is equally important to probe critically into all refractory seizure not to overlook associated with PNES.

Literatures⁴ quote that most patients with PNES take anticonvulsants before correct diagnosis is made; our study showed 40%. This too is a significant proportion.

It need not be over-emphasized that obtaining a definite diagnosis of PNES early in the course of disease is critical as the duration of illness is probably the most important

prognostic factor in PNES; the longer the treatment time, the worse the prognosis. In addition, an accurate diagnosis of PNES significantly reduces subsequent healthcare costs.

A community based study or a study to include fainting attacks treated in private hospitals could give an even better picture.

By and large, all cases of fainting attack needs to be looked into critically not to miss out PNES and the subsequent misuse of AEDs.

Conclusions

Although 50% of patients presenting with “fainting attack” in our hospital are true cases of seizure, PNES comprises more than a third of patients presenting with such “fainting attack” which is a significant number. Up to 40% of such PNES patients were unnecessarily taking AEDs. Therefore, one needs to consider the diagnosis of PNES seriously before giving any AEDs, especially if the patient is a young female.

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