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VIDEO ELECTROENCEPHALOGRAPHIC STUDY IN PATIENTS WITH SUSPECTED PSEUDOSEIZURES.

Neurology

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ABSTRACT

Seizure is a very common symptom of presentation in Neurology. It should be differentiated from pseudoseizures as seizures require long term use of anti epileptics which may sometimes continue for whole life. Pseudoseizures, on the other hand, require proper counseling and reassurance. There are different criteria to identify the differences between these two but at times, pseudoseizures may be confusing to the treating physician and hence require video EEG monitoring to rule out true seizures. We did a study on all such patients and present our results here.

KEYWORDS

Video EEG, pseudoseizures

INTRODUCTION :

Pseudoseizures or Psychogenic non-epileptic seizure disorder (PNES) is a behavior pattern mimicking epileptic events without the concomitant EEG pattern of an electrical seizure. Non-epileptic seizures occurs both in patients with and without epilepsy[1].The incidence is more common in those with epilepsy than those without. Previous studies report coexisting PNES and epilepsy in 10–13% of cases reviewed[2]. Higher numbers (10–40% of epilepsy patients) are reported in tertiary epilepsy centers, likely due to the higher rates of intractable epilepsy, and due to the pertinent diagnostic facilities available, namely video-EEG monitoring[3]. Hospital-based EEG with time-locked video recording is the 'gold-standard' investigation for the assessment of possible pseudoseizures [4]. Ambulatory EEG without video is less well suited to the investigation of events of uncertain aetiology because of the lack of documentation of pre-, peri- and post-ictal behavior[5].

AIMS AND OBJECTIVES:

To study about the incidence of true pseudoseizures in the clinically suspected ones with video EEG monitoring.

Inclusion criteria :

1. Patients presenting with suspected pseudo- seizures without known epilepsy.
2. Patients above 20 years of age.

Exclusion criteria :

1. Patients below 20 years of age
2. Patients with true seizures or history of epilepsy.

MATERIAL AND METHODS :

This was a retrospective observational study done on the patients presenting to outpatient department at a Neurology clinic in India. All patients who were more than 20 years of age and presenting with suspected pseudoseizures with no known history of epilepsy or presenting episodes suggestive of seizures were included in the study. Video EEG was done for 48 hours in all the patients. The data was later analyzed.

RESULTS :

25 patients were studied. 9 were males and 16 were females. Most common age of presentation was between 20-30 years age group. 18 patients had events of suspected pseudoseizures during the record while 7 did not show any such event (all such patients were adviced for followup video EEG at a later time). 2 patients showed interictal discharges in the form of sharp waves and sharpened theta activity. In all the 18 patients having events, ictal data was analyzed. 3 patients showed frontal sharp waves followed by generalized epileptiform sharp waves whereas 1 patient showed generalized electrographic seizure activity. Rest all patients analysed did not show any significant discharges[Table 1].

Table 1 : Distribution of epileptiform activity according to age

Age group	Interictal epileptiform activity	Ictal eplileptiform discharges
21-30 years (10)	1	2
31-40 years (8)	1	1
41-50 years (5)	-	1
51-60 years (2)	-	-
Above 60 years (0)	-	-

DISCUSSION:

The differentiation of pseudoseizures from epilepsy is challenging and relies on an integrated multidisciplinary approach which utilizes the expertise of the epileptologist and clinical neurophysiology physicians and physiologists[6]. One of the greatest dangers in this is the over-interpretation of benign EEG phenomena or movement artefacts as epileptiform. Other diagnostic errors arise from unclear accounts of ictal and post-ictal behavior, the inappropriate extrapolation of a clinical diagnosis from the recording of atypical or minor seizures and reports which omit useful information Increased standardization of EEG protocols and reporting practices have the potential to improve clinical decision-making, ensuring that a high quality service is provided across centres and that patients' exposure to potentially unethical practices is minimised.

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