Video-electroencephalography Monitoring and Cerebral Imaging are Mandatory in Patients with Functional Seizures

Dear Editor,

We read with interest the case report by Alyami *et al.* of a 22-year-old male who was misdiagnosed with epilepsy over a 9-year period and ultimately correctly diagnosed with panic disorder.[1] His last medications before correcting the diagnosis included valproic acid, lamotrigine, clonazepam, sertraline, amisulpride, and quetiapine.[1] The case report is impressive, but some points require discussion.

It is incomprehensible why the patient was misdiagnosed as having epilepsy for 9 years. To arrive at a complete picture of the case, the following information need to be provided: were the panic attacks ever witnessed by the treating neurologist or other professionals apart from those who diagnosed epilepsy at the age of 13 years? What seizure types were diagnosed by the treating neurologist, and did the patient ever lose consciousness or pass stool or urine? Were creatine kinase levels ever elevated? Was the patient ever injured during a seizure episode? Was only one seizure type diagnosed or were several types diagnosed?

As the "seizures" occurred weekly, it would have been appropriate to monitor the patient for a week using video electroencephalography (EEG). Video-EEG has the advantage that all antiseizure drugs (ASDs) can be stopped and not only is there a continuous recording of the EEG, but also continuous video recording. In most cases, video recording together with continuous EEG recording makes it possible to assess whether these are seizures or just functional attacks.

It is also incomprehensible why no cerebral magnetic resonance imaging (MRI) results were reported. According to the recommendation of the International League Against Epilepsy, every patient diagnosed with epilepsy requires an MRI according to an epilepsy protocol (1-mm cuts) at the initial diagnosis of epilepsy. Knowing whether there is a structural lesion that could eventually explain true seizures could be helpful in distinguishing between true and functional seizures.

The patient was taking not only ASDs but also antidepressants (sertraline) and neuroleptics (amisulpride, quetiapine). We should know how long the patient has been taking these psychiatric medications and what psychiatric diagnosis was made by the treating neurologist. The treating neurologist apparently also considered a psychiatric diagnosis in addition to epilepsy.

In conclusion, patients with ictal attacks, in addition to psychiatric illness, should undergo not only cerebral imaging to possibly identify a focus, but also video-EEG monitoring to determine whether such attacks are true seizures due to epileptiform discharges on EEG.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Submitted: 14-Sep-2023 **Accepted:** 25-Oct-2023 **Published:** 15-Jan-2024

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1. Alyami H. A case of panic disorder misdiagnosed as epilepsy for 9 years in a young male. Saudi J Med Med Sci 2023;11:175-7.

Access this article online

Quick Response Code:

Website: https://journals.lww.com/sjmm

DOI: 10.4103/sjmms.sjmms_413_23

How to cite this article: Finsterer J. Video-electroencephalography monitoring and cerebral imaging are mandatory in patients with functional seizures. Saudi J Med Med Sci 2024;12:76-7.