

Poster presentation

## Epilepsy presenting panic attacks and hallucinatory experiences as drug side effect: a case report

Seyyed Mehdi Samuimi-Ardestani\*, Alireza Zahiroddin, Fatemeh Khodaifar and Alireza Shafiee Kandjani

Address: Department of psychiatry and behavioral sciences, Imam Hosein Hospital, Shaheed Beheshti University, Tehran, Iran

\* Corresponding author

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### Background

Panic disorder is characterized by spontaneous, unexpected occurrence of panic attacks with discrete periods of intense fear accompanied by symptoms like as palpitations, pounding heart, sweating, sensations of shortness of breath, feeling dizzy or lightheadedness and fear of losing control or fear of dying [1].

Panic attacks could be primary or secondary in origin. Numerous organic underlying causes such as epilepsy may lead to the development of panic attacks. It has been declared that although there are no exact data, simple partial seizures are associated with a range of psychiatric disorders in which panic attack is one of them. Therefore, to treat properly, simple partial seizure should be noted as differential diagnosis [2]. Panic-like attacks may occur in simple or complex partial seizures along with depersonalization and derealization experiences similar to the conditions in primary panic attacks [3]. Here we report a case of epilepsy whose main disease presentation was panic attacks and experienced unusual side effects during the course of drug therapy.

### Materials and methods

A 22-year-old female reported two panic attacks characterized by abrupt shortness of breath, palpitations, feeling of choking, extreme fear and feeling of going crazy was referred to the psychiatric emergency at Imam Hossein Hospital in Tehran, Iran. Physical and neurological examinations showed no abnormal findings. She took 0.5 mg

of clonazepam and 30 mg of Imipramine each day with the diagnosis of panic disorder and was advised to be followed up in a week.

In the revisit session, the symptoms of the patient had been considerably decreased, but after 2 weeks she returned with exacerbation of panic attacks with fluctuations in consciousness. The patient described the attacks as such: "suddenly without fear I feel that my surrounding environment has become dream like and I can't hear the voice of people around". In addition she had the history of above attacks without fluctuations in consciousness about 5 years ago which had been relieved without any special medication.

Thus, with the likely diagnosis of seizure, CT scan and EEG were done to rule out the organic causes. The CT scan report was normal but EEG showed abnormal waves in form of sharp spike waves in background of slow epileptic waves in the right temporal lobe.

Clonazepam and imipramine were discontinued and sodium valproate was prescribed with 600mg doses each day. After a week, panic attacks and derealization state reduced considerably, but later the patient experienced a brief panic condition and the medication was replaced by carbamazepine 1600mg daily by another physician probably with the clinical suspicion of drug inefficacy. Imipramine restarted with the previous dose (i.e. 50 mg

daily) as well. Two weeks later, two derealization states occurred and she would hear some people conversing with each other at times which made her very frightened. She was aware of the auditory hallucinations and declare them through full insight and sun real during the interview, although she had got a partial insight to the hallucinations within the illness. Carbamazepine was again replaced by sodium valproate and the hallucinatory experiences relieved soon.

## Results

Till now, the patient has been under sodium valproate as well as 9 months treatment duration with imipramine. No panic attack or dissociative state has been developed in this time period.

## Conclusions

In this case, epilepsy was known as the underlying cause for panic attacks. Al though some authors have noted auras as major diagnostic factor for epilepsy, we did not detect any aura in the reported case. Moreover, carbamazepine. led to the exacerbation of panic attacks and development of psuedopsychotic episodes. Panic attack could be the primary manifestation of a simple convulsion [3-7].

Hallucinatory experiences can be considered as the direct side effect of cabamazepine consumptions [8]. For instance, in a report of case with visual hallucination carbamazepine was noted as the likely cause. Auditory perceptual disturbance due to carbamazepine was also reported [9].

Carbamazepine aggravates absence seizure [10] which may account for the recurrence of panic attack after initiation of the drug in this patient. Meanwhile, several cases with panic attacks have been reported in whom the primary diagnosis was temporal lobe epilepsy [11]. We cannot hypothesize about the coocurrence of absence and temporal lobe epilepsy in the patient parly because lack of follow- up EEG tracings. Another cause for development of panic attack after prescription of carbamazepine may be related to the simultaneous prescription of imipramine which lowers seizure threshold as a tricyclic agent consequently [12].

Individual drug side effects should be considered as likely underlying causes of panic attacks in which further controlled trials would be necessary.

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