



## LETTER TO THE EDITOR

### Differential diagnosis and treatment of idiopathic occipital epilepsy and visual seizures in an adolescent case: is “hallucination” always “hallucination”?

Bir ergen olguda idiyopatik oksipital epilepsi ve görsel nöbetlerin ayırıcı tanı ve tedavisi: “halüsinasyon” her zaman “halüsinasyon” mudur?

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To the Editor,

Epilepsy is the most common childhood neurological disorder that affects 0.5 to 1.0 % of children younger than 16 years of age. Cognitive and behavioral impairments as well as various psychiatric and neurodevelopmental disorders can accompany this condition. Among children and adolescents, occipital epilepsy can be easily overlooked because it can mimic other epileptic syndromes and symptoms may be subtle<sup>1,2</sup>. The initial complaint of a patient suffering from occipital epilepsy could be visual hallucinations. Child and adolescent psychiatrists must be aware of the difference between these neurological-originated hallucinations and others denoting psychopathologies.

A 14-year-old female adolescent applied to our clinic with the complaint of “seeing men dressed in black, without faces several times a day”. Her hallucinations had been occurring about 3 to 4 times a day, almost every day, for the last year and those hallucinations initiate with occasionally “seeing colored circles” on the wall immediately facing her. The colored circles gradually involved men who were completely black with no faces, who seemed to get taller as they approached her. At the same time, the circles surrounding those men constantly moved and vibrated. The hallucinations were stereotypical, taking place in the same order and content, and always involving four men. When one of the men

approached her enough to cover almost half of the field of her vision, light beams similar to fireworks exploding in different colors obscure the scene. Recently, light beams were occasionally accompanied by “sounds of laughter”. The episodes culminated with weakness and fatigue so severe to inhibit speech and action, somnolence, headache, nausea, and vomiting. She was brought to our clinic for treatment due to decreased school success, difficulty in focusing, and forgetfulness in the last few months. No features were found in the past medical history except a burn injury after a home accident at nine months of age which necessitated follow-up in the intensive care unit for two months. The motor-mental development milestones were reached on time. No symptoms of psychopathology or stressors were found in the premorbid history. Family history, physical and neurological examinations, laboratory assessments, electroencephalography, and echocardiography were reported to be within normal limits. No abnormal features were detected in the mental status examination except reduced spontaneous and voluntary attention. The stereotypic and episodic nature of the patient’s visual hallucinations, the positive and negative visual phenomena of illusions, vomiting after hallucinations, shifting in the eyes, having a headache, and sleep inclination, and all being unrelated to a stressor suggest an organic etiology despite the EEG and laboratory results being in the normal range.

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After evaluation with the Department of Child Neurology, cranial MRI and neuropsychological tests were planned to be applied. The patient's MRI was reported as an encephalomalacia area in the left occipital lobe showing increased T2A signaling, increased diffusion and loss of volume, and bilateral cerebellar gliotic changes. Valproate 500 mg/day was started after procuring the informed consent of the parent and assent of the adolescent considering the strong suspicion of a diagnosis of occipital epilepsy after the anamnesis, examination, tests, and imaging findings. At the follow-up visit on the second week, the patient reported a complete regression of complaints. Two months later, her general well-being continued to improve, and her academic success also improved.

In this study, the diagnosis and treatment of an adolescent patient with occipital epilepsy with isolated, and stereotypical visual hallucinations was presented. It was thought that due to the predominance of visual hallucinations, lack of autonomic nervous system symptoms, vomiting, and sleep disorder, our patient could meet the diagnosis of childhood occipital visual epilepsy (COVE syndrome) but the diagnostic criteria of self-limited focal epilepsies of childhood (SeLAS ) were not met<sup>3,4,5</sup>. Childhood occipital visual epilepsy is rare, usually starting around the age of 8, and a history of epilepsy is reported in one-third of cases<sup>3,4,5</sup>. Our case differs from the literature due to its age, lack of family history, and EEG findings, but its response to valproate treatment is similar to other cases in the literature. The syndrome is usually well-established, and most children have been reported to have regressed within two to five years after onset<sup>3,4,5</sup>.

The initial complaint of occipital epilepsy may be visual hallucinations, and it may be important for child and adolescent psychiatrists to be aware of the differences between these hallucinations and others with psychopathological origins. It should be

prioritized to consider occipital epilepsy in cases with isolated visual hallucinations which are also stereotypical, having episodes accompanied by simple and complex visual phenomena, illusions, and sometimes auditory hallucinations, and in cases that are not related to psychosocial stressors. This study may highlight the importance of detailed phenomenological evaluation of complaints by clinicians among adolescents with visual hallucinations and limit unnecessary use of atypical antipsychotics for their management.

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