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LETTER TO THE EDITOR

Alice in Wonderland syndrome or delirium? a case of a five-year-old girl with hallucinations of snakes

Alice Harikalar Diyarında sendromu mu yoksa deliryum mu? yılan halüsinasyonları olan beş yaşında bir kız çocuğu vakası

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To the Editor,

Alice in Wonderland syndrome (AIWS) was first described by the British psychiatrist John Todd in 1955, as a disorder characterized by episodes of visual illusions, altered body shape perception, and temporal and spatial distortions[1]. The body and other objects may seem to be larger (macropsy), smaller (micropsia), or distorted (metamorphopsia), together with derealization or depersonalization[1]. Symptoms usually last from a few minutes to days and resolve without sequelae[2]. AIWS is a rare entity, 132 cases of which, 55.6% involving boys, have been reported in the pediatric literature to date[1]. The most common etiological condition in children and adolescents is encephalitis, with a prevalence of 21.7%. Epstein-Barr virus has most frequently been reported as a pathogen (in 68.4% of all encephalitis cases)[1]. While electroencephalography (EEG) performed for diagnosis has been found to be normal in some cases, 1 to 4 Hz slow waves, either diffuse or over the bilateral parieto-occipital regions of the head, and focal slow waves over the occipital and temporal regions, have been detected in others[3,4]. The aim of treatment in AIWS is to alleviate the underlying condition, with complete remission being achieved in 46.7% of the cases reported in the literature to date[11].

Delirium is a neuropsychiatric disorder representing global encephalopathic dysfunction[5]. Disorientation, an altered sleep-wake cycle, agitation, hallucinations, altered mood, and attention disturbances can be observed at clinical examination, the onset of symptoms is acute, and symptom intensity fluctuates and may worsen at night[5]. Derealization and depersonalization are not observed in cases of delirium[5]. Infections are the most common etiological cause[5]. The underlying condition responsible for the delirium should be treated first[5]. Antipsychotic drugs are used for the treatment of hallucinations, agitation, confusion, and sleep disturbance[5]. This report describes a case of a five-year-old girl with a complaint of hallucinations of snakes.

M.A, a five-year-old girl, first presented to us in the company of her parents with symptoms of hallucinations of snakes, irritability, and nocturnal panic. The patient and her parents gave verbal consent for the publication of this case report. Following the onset of the complaints, the patient and her family presented to the emergency pediatric outpatient clinic. The emergency pediatric department was consulted. The patient had experienced sore throat, weakness, fever, and cough two days previously. The family then administered paracetamol suspension at 240 mg/day for two days to reduce these symptoms. The patient also had a previous history of use of this drug. In the first interview with the patient, she was lucid, oriented, cooperative, calm, relaxed, and was not seeing snakes. She was observed in the emergency pediatric department for follow-up. However, we learned that she became agitated 15 minutes after our interview in the child psychiatry department. The patient and her

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family were then re-interviewed. During the second interview, she was extremely frightened and agitated. She behaved as if she was attempting to drive snakes away, stating that she could see them on her and was trying to chase them off, but they refused to go. The family stated that the patient exhibited such behavior during the night, was unable to sleep, screamed and shouted throughout the night, and was unable to remember her own bedroom. No micropsia, macropsia, metamorphopsia or other hallucinations, delusions, derealization, or depersonalization were present. At psychiatric examination, the patient was lucid, although her orientation was not complete. The pediatric and pediatric neurology departments were consulted in order to rule out possible medical causes. AIWS was suggested by the pediatric neurology department. Complete blood count and hepatic and renal function tests were all within normal limits. The patient's CRP, an inflammatory parameter, was high at 9 (normal range 0-8), while WBC was normal at 9800 (normal range 5-14.500). No pathology was detected at pediatric or pediatric neurology examinations, nor at EEG or cranial MRI. Autoimmune encephalitis panel antibodies were negative. The patient was not using any regular medication and had no history of disease. No known psychiatric, neurological, or medical disease was present in the family. Delirium was suspected following psychiatric examination, and risperidone 0.25 mg/day was initiated for her irritability and visual hallucinations. The patient's complaints resolved within two days. The infection symptoms also resolved.

This case report of a five-year-old girl with the complaint of hallucinations of snakes is presented to assist clinicians with the differential diagnosis of patients with similar symptoms. Fluctuations in consciousness, disorientation, worsening of symptoms at night, and the disappearance of symptoms two days after initiation of risperidone use suggest the presence of delirium in this patient. AIWS was diagnosed due to the patient's altered body shape perception, and absence of macropsia, micropsia, metamorphopsia, derealization, depersonalization, and temporal and spatial distortions in objects. Negative autoimmune encephalitis panel antibodies and the absence of any pathology at EEG is more indicative of delirium and less so of a diagnosis of AIWS. However, infection and the onset of symptoms two days after infection can be observed in both conditions. The duration of symptoms is also similar in both diseases. The nature of clinical symptoms is therefore particularly important at differential diagnosis of such patients.

AIWS is a rare entity, for which no ICD-10 or DSM-5 criteria are available. Other diagnoses such as epilepsy, central nervous system lesions, and psychiatric disorders should be excluded for diagnosis. DSM-5 criteria are available for delirium. In order for diagnosis to be established, these criteria must be met, and other neurocognitive disorders that might better explain these symptoms must be excluded. Clinical diagnostic aids such as blood tests, brain magnetic resonance imaging, and EEG should be performed in cases in which the diagnosis is unclear. It is also important for differential diagnosis for EEG to be performed as quickly as possible when the symptoms described above are present.

It is important for clinicians to work as a team and possess a good understanding of the clinical manifestations of AIWS in order to establish accurate diagnosis, identify the underlying etiology, and provide appropriate treatment.

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