CASE REPORT

Pregabalin Induced Remission of Charles Bonnet Syndrome

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Abstract

Charles Bonnet syndrome is a condition characterized by the presence of visual hallucinations in patients having visual impairment. We report a case of an 83-year-old male who had developed significant visual loss due to corneal abscess and adherent leukoma in his right eye and congenital blindness in left eye. He had presented with seeing images of people, animals since 8 months and was referred to a psychiatrist. There was remission of his symptoms with improvement in vision after keratoplasty operation. But the hallucinations restarted when his vision deteriorated after graft rejection. He was aware that the hallucinations were not real but a part of his imagination. A detailed history revealed that apart from anxiety due to hallucinations he did not have any other psychopathology. He was started on pregabalin and his symptoms dramatically improved.

Keywords: Charles Bonnet Syndrome, Visual Hallucinations, Pregabalin

Introduction

Charles Bonnet syndrome (CBS) is a condition occurring in 11-15% of patients with visual impairment like age related macular degeneration, cataract, or no specific eye condition. It can affect people of any age but is seen predominantly in the 70-85 age group. The hallucinations are recognized as unreal and occur without associated psychiatric symptoms. Most cases go undetected. This is either because of lack of knowledge amongst the practitioners or fear among patients of being labeled mentally ill. However there is no substantial evidence regarding course, management and prognosis of this syndrome. Reassurance and explanation that the visions are benign and do not signify mental illness, is the only way out. We report a patient with CBS whose visual hallucinations stopped after starting him on pregabalin.

Case

An 83-year-old male was referred to the psychiatrist by the ophthalmologist for recurring complaints of seeing images with associated fearfulness for 7 days. The patient’s history was such that he was visually blind in left eye since birth. At 73 years of age he started complaining of blurring of vision in the right eye and was diagnosed as having cataract. As it was the only functioning eye and there were no other symptoms, he was operated for the same. After cataract surgery patient was
completely fine for 10 years and had no difficulties in doing his activities of daily living. 8 months ago patient developed gradual deterioration in his right side vision and 3 months later, he started seeing images of people sitting around him, staring at him but not causing him any harm. He reported these people as unknown, being traditionally dressed, accompanying him wherever he went and also being at his bedside. He occasionally reported seeing animals like cows, cats, dogs etc. around him. This scared him and he could not sleep properly.

Due to these persistent images, sleep disturbances and deterioration in his right side vision, the patient was referred to an ophthalmologist. This time patient was diagnosed as having corneal abscess with adherent leucoma in the right cornea with his vision being hand movements close to the face. Penetrating keratoplasty was done and simultaneously all his visual hallucinations and fear related to same completely stopped, with 75% improvement in vision.

The patient was fine and able to carry out his activities for a period of 5 months after which his vision deteriorated due to graft rejection. Associated revascularization changes and complete opacity occurred and the patient’s vision again was just perception of hand movements close to face. He then developed a recurrence of the visual hallucinations and this time he was referred to the psychiatrist for the same.

A detailed history and mental status examination did not reveal any major psychopathology. He did not have delusions, hallucinations or any cognitive, intellectual or behavioral impairment. The patient was diagnosed as having Charles Bonnet Syndrome and started on tablet pregabalin 75mg at night. Within 10 days of starting medications, the patient reported complete improvement in symptoms and all his hallucinations stopped. The medication was given for 1 month and then it was stopped as the patient had recovered.

However on stopping the medication, symptoms recurred within 4 days though this time the frequency of hallucinations was intermittent and they were fleeting. The patient also did not express any fears regarding them. Hence he was only kept under observation with a regular follow up. But over 1 month the condition deteriorated and the patient expressed distress. So he was restarted on the same dose tablet of pregabalin and within 4 days a dramatic response to the same was seen. This time patient has been on followed-up for 2 months after restarting pregabalin with complete amelioration of the visual hallucinations. However there is no improvement in his right eye vision and patient is being looked after by his wife.

Discussion

Based on the symptoms of visual hallucinations, we diagnosed the patient as CBS. The hallucinations in CBS can be simple or complex. In simple type, patients visualize simple patterns, grids, lines or abstract designs depending on the background. In complex types animals, people, insects etc. can be seen. These occur as a release phenomenon due to deafferentation of the visual association areas of the cerebral cortex, leading to a form of phantom vision.

Literature shows gabapentin to be effective in the management and resolution of the hallucinations. It modulates calcium influx and reduces the release of excitatory neurotransmitters, influencing GABAergic neurotransmission. As the author had a
previous experience of using pregabalin in the treatment of CBS, this patient was also started on same. 

Pregabalin being related to gabapentin has similar mode of action. But how gabapentin ameliorates the visual hallucinations is not known. Various antiepileptics like carbamazepine, valproate have also been used, but with variable success. It has been proposed that carbamazepine may be effective because of its inhibitory action on the increased ventral extrastriate neuronal activity in patients with CBS that persists between the attacks of hallucinatory symptoms. Other drugs include risperidone, an antipsychotic, and diazepam, a benzodiazepine, which have also been used. Donepezil, a cholinesterase inhibitor, was found effective in a case of CBS who did not have any history of cognitive decline. 

There is not much literature on the recurrence of the visual hallucinations except for a case reported where ondansetron, a serotonin antagonist was used for treatment of CBS and the symptoms recurred after stopping the drug. This was also seen in our patient where by stopping pregabalin symptoms recurred and giving the medication ameliorated the same. Not much information is available in literature with pregabalin. Non-pharmacological interventions like closing or opening the eyes, blinking, putting on a light, distraction, hitting the hallucination or shouting at the hallucination may also help reducing the length of the hallucinatory period.

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References


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