

## Case Report

# A Case Report on Charles Bonnet Syndrome

Husain Maruzairi<sup>1\*</sup>, Chin Lie Joo<sup>2</sup>

### Abstract

**Objective:** Charles Bonnet Syndrome (CBS) consists of visual hallucinations occurring in patients with visual impairment. CBS is commonly overlooked by medical professionals and underreported by patients due to the underlying stigma attached to the presence of hallucinations. Lack of awareness regarding CBS among medical professionals may lead to failures in providing forewarning and education to patients with visual impairment. In patients who are not familiar with CBS, this might lead to a higher risk of distress, misattribution to cultural belief or mental illness, and the potential of developing psychosis, especially in elderly patients with other modalities of sensory deprivation. This case report aims to increase awareness and knowledge about CBS among clinicians for the proper management of patients.

**Method:** This case illustrated a patient with worsening visual impairment who presented with typical CBS and later progressed to visual hallucination and persecutory delusion

**Results:** Providing information on CBS and antipsychotics resulted in less distress and improved the patient's visual hallucination and delusion

**Conclusion:** Education and reassurance play a role in the management of CBS. It is important for medical professionals to be aware of CBS and provide clear information for patients who are at risk to lower their distress.

**Key words:** *Charles Bonnet Syndrome; Delusion; Visual Hallucination; Visual Impairment*

1. Department of Psychiatry, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia.
2. Department of Psychiatry, Sarawak General Hospital, Kuching, Sarawak, Malaysia.

### \*Corresponding Author:

Address: Department of Psychiatry, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia, Postal Code: 16150.

Tel: 609-7676710, Fax: 609-7659057, Email: drzairi@usm.my

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**C**harles Bonnet Syndrome (CBS) is a clinical condition where patients with visual impairment present with visual hallucinations. There are several diagnostic criteria for CBS, but the general required elements are visual hallucinations, vision loss, and lack of confounding neuropsychiatric disorders causing visual hallucinations (1). The prevalence of CBS ranges from 6.7% to 8.1% (2). Variations between studies are probably due to differences in population, age, diagnostic criteria, cause for vision impairment with the possibility of under-reporting.

Increasing awareness and knowledge of CBS among clinicians allows for proper diagnosis and appropriate management of patients. In addition, recognizing symptoms and identifying signs of CBS will prevent misdiagnosis and unnecessary psychiatric or medical treatment which usually causes more distress or burden to patients. This case illustrated a patient with worsening visual impairment who presented initially with typical CBS and later progressed to complex visual hallucination and secondary persecutory delusion.

### Case Report

A 63-year-old lady was referred for psychiatric evaluation due to worsening visual hallucinations associated with persecutory delusion for the past four months. She underwent treatment for bilateral retinal detachment eight years ago and had cataract removal with an intraocular lens implant for the right eye four years ago. As a result, she could see within 3 meters from her right eye and could see hand movement by her left eye. However, her right-sided vision gradually worsened in the past one year. Unfortunately, there was no plan for active intervention from the ophthalmology team.

One year ago, she complained of seeing black shadows occasionally, which later progressed to more well-formed shapes such as human and car shapes. These were perceived in clear consciousness from both her eyes. The visual hallucinations resolved spontaneously or after the patient closed her eyes and prayed. Thus, she attributed this symptom to spiritual causes and did not confide in anyone regarding her condition. Her social and occupational functions were intact. Over the past four months, the symptoms worsened where the patient started seeing a female figure with long black hair. She described that the female figure would always follow her around and even lead other ghosts into her house. She started reacting to these visual hallucinations, which resulted in sleep disturbances. Subsequently, she believed that someone cursed her, and they were trying to harm her. She then underwent several sessions of traditional treatments, but all efforts did not relieve her symptoms.

One week before the hospital visit, the patient saw a female figure holding a family portrait with fingers pressing on the photo and following her around with a

rope in hand. She perceived this as a message that she will be killed; hence, she reacted by shouting, screaming, and trying to take down the family portrait on the wall. Her sleep worsened where she stayed awake the whole night due to constant worry that the female figure will kill her during sleep. She also exhibited irritability upon reassurance by family members.

No mood symptoms, family history of psychiatric illness, or neurological deficit were elicited. Cognitive function was intact with normal objective assessment, including symptoms of dementia screener (SDS) and Elderly Cognitive Assessment Questionnaire (ECAQ). Computer tomography of the brain revealed chronic mastoiditis with no significant intracranial abnormality.

The patient was started on Quetiapine and Zolpidem. After a week, she resumed her role as a housewife and became less distressed with visual hallucinations of a shakable and persecutory idea. Reassurance and education were given to both patient and family members throughout treatment sessions. They were provided with information on CBS and explained distraction techniques. Instillation of insight was emphasized during each psychiatry clinic visit. After one month of treatment, there was no persecutory delusion or idea anymore. Although there were residual visual hallucinations, she was not distressed and could practice distraction techniques with good insight. Informed consent was obtained from the patient after she improved.

### Discussion

The initial presentation was typical of CBS, but she attributed the visual hallucination to spiritual experience due to intact function. The progression of symptoms from visual hallucination to secondary persecutory delusion may be explained by sensory deprivation (visual impairment) as well as sleep deprivation. In addition, delay in education on the origin of her abnormal experience and her background cultural belief further reinforced persecutory delusions.

This case showed a lack of forewarning and education to patients with visual impairment on the risk of visual hallucination. A study in Denmark found that 80% of their patients from the retinal clinic were unaware of CBS and had no idea about it (3). To complicate matters, most patients may not report symptoms of visual hallucination voluntarily due to the stigma associated with experiencing psychiatric symptoms and psychiatric illness. Lack of information regarding CBS symptoms highlighted the role of cultural belief. It is common and more "convenient" for a person to attribute abnormal experiences to a religious or spiritual cause rather than admitting it to be psychiatric symptoms (4). Therefore, medical professionals should take the initiative to screen and discuss the risk of CBS in those with visual impairment. Unfortunately, this is hindered by a lack of awareness among medical professionals. A study conducted among family physicians in Canada reported

that more than half (54.7%) were not aware of CBS. Most family physicians (84.9%) have never provided information on CBS to those with severe visual impairment (5).

Education and reassurance play a role in the management of CBS. Those who were given clear information on CBS reported having a lower risk of distress secondary to symptoms (6). Education and forewarning about CBS can prevent misattribution to cultural beliefs or mental illness as well. Hence, it is of utmost importance for medical professionals to be aware of CBS and provide clear information on CBS for those at risk of developing CBS.

Correction of vision will help improve visual hallucination. However, in cases where vision correction is not possible, lifestyle modification plays a role in its management. Adequate lighting, adequate sleep, engagement in activities, and distraction techniques such as repetitive blinking, closing, and opening eyes, looking directly or away from the visual hallucination, and reaching out for the hallucination may help reduce symptoms (7).

Cox *et al.* (6) reported that 44% of sufferers experienced negative emotion at the onset of illness. In patients with significant distress and continuous hallucination, psychotropics such as olanzapine or quetiapine may be considered (8). There were case reports suggesting the use of anticonvulsants such as carbamazepine, clonazepam, and sodium valproate (8), cholinesterase inhibitors such as donepezil (9), and anti-depressant such as sertraline (10).

### **Limitation**

Our access to the data regarding the presence of visual hallucinations following visual impairment was very limited. Also, the usual practice of management by the ophthalmology team was unable to be determined.

### **Conclusion**

Medical professionals should be aware of the risk for visual hallucinations in patients with visual impairment. Early recognition of the CBS symptoms and providing information, advice, and proper treatment can lower the distress experienced by the patients.

### **Acknowledgment**

None

### **Conflict of Interest**

None

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