

## Charles Bonnet Syndrome: A Case Study

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### Abstract

We present a rare case of visual release hallucinations also referred to as Charles Bonnet syndrome. The disorder is rare and no officially recognized mode of treatment has been developed. However, we hope that as the time goes by, and more cases of CBS are found. It will be possible for the scientists and the clinicians to find a permanent and a better cure for this rare mystery.

**Keywords:** 1,3,4-oxadiazoles derivatives; Pharmacological activities

### Introduction

*“People call me blind, yet I can see things that others don’t. Then how come I am blind?”*

This above mentioned statement clearly depicts what goes on with the patients suffering from Charles Bonnet Syndrome. This rare condition was first studied by Charles Bonnet, a Swiss clinician, in the year 1760 [1]. The condition was named after him and is still known as Charles Bonnet Syndrome. He first observed the symptoms of this strange syndrome in his own grandfather, who acquired blindness due to cataract, and yet complained of seeing things which others could not [1-2].

Charles Bonnet syndrome (CBS) also known as Visual release hallucinations are a condition found in some people who have lost their vision. It causes these people to see things that aren’t really there, known as visual hallucinations. These people are psychologically normal and have no preexisting psychiatric illness that manifests hallucinations [3-6]. About 12% to 13% of patients with impaired sight have visual hallucinations [7]. It was initially thought that hallucinations resolved within 12 to 18 months, but a recent study found that most people still have occasional hallucinations five years after they first started.

People who have CBS may have lost a lot of their vision from an eye condition, such as age-related macular degeneration, cataract, glaucoma or diabetic eye disease [1]. These ophthalmological conditions are fairly common in older people, therefore, patients with CBS are usually older. However, it is not confined to geriatric patients alone, and can be seen in pediatrics patients as well [2]. In this article, we discuss a unique case of CBS, in an attempt to educate and help new physicians and patients.

### Case Report

A 77 year old male, with a past history of advanced eye disease - with primary open angle glaucoma and cataract surgery in right eye; and non-proliferative diabetic retinopathy in left eye, presented to the ER with COPD exacerbation. Prophylactic antibiotics and steroids were given and symptoms resolved. However, the patient also gave an unusual history of seeing typed letters on the wall, which flared up for the last two days. Patient reported waxing and waning of these symptoms for the past three months, for which his primary care physician had referred him to ophthalmology. The patient presented to the ER before he could see the ophthalmologist. The patient could see complete sentences, punctuation marks and capital letters, which was mostly blurry, but he could still see and spell out a few words like; *France, least, north western, rehabilitated*, clearly.

On physical examination, patient maintained full insight was fully aware and oriented x 3. Mini mental status examination was normal. An extensive neurologic exam performed, which did not reveal any focal deficits.

Ophthalmology was consulted and diagnosed him with CBS. Recent CT scan did not reveal any abnormality.

### Discussion

Hallucinations perceived by a CBS patient are usually images which are typically well-defined, clear, and lack personal meaning or impact to the patient. Patient presenting with hallucinations just in the form of writings is unusual.

CBS is usually seen in elderly with a mean age of 70-85 years [5] and are likely to have a history of diminished visual acuity or visual field loss. The diagnosis is made when these hallucinations occur in patients with vision loss in the absence of psychosis, delirium, or other causes (Table 1) [8]. Patients with CBS are minimally affected by their condition and have little impact on the general feelings of well-being, as they almost always recognize them as unreal [9].

CBS frequently goes unrecognized in clinical practice [10], as the patients fear being labeled mentally unstable [11] they are reluctant to admit to hallucinatory experiences and also due to lack of awareness among doctors. Reassurance and explanation that the visions are benign and do not signify mental illness have a powerful therapeutic effect; often resolve if the underlying vision deficit is corrected [12].

Diagnostic Criteria for CBS
At least one complex visual hallucination within the past 4 weeks
A period between the first and last hallucination exceeding 4 weeks
Full or partial retention of insight into the unreal nature of the hallucinations
Absence of hallucinations in other sensory modalities
Absence of delusions

**Table 1:** Diagnostic criteria for Charles Bonnet Syndrome.

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CBS is a diagnosis of exclusion. Neurologic and psychiatric problems should first be excluded before diagnosing the problem as CBS [7]. No official mode of treatment has been described [6]. However, a recent study showed the effectiveness of selective serotonin reuptake inhibitors [13].

## Conclusion

As our society ages, physicians are likely to encounter CBS more frequently, and it should be considered in all elderly patients with visual hallucinations. Although benign, increased awareness of this condition is necessary to avoid misdiagnosis, unnecessary investigation and possible management. We recommend more studies in the future to learn more about the cause and pathophysiology of the condition to find more ways to treat the similar case successfully.

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