

Charles bonnet syndrome, management with simple behavioral technique

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ABSTRACT

Charles Bonnet syndrome occurs in visually impaired but cognitively normal individuals. This report describes a condition of vivid visual hallucination (phantom images) in an 85-year-old conscious man, who had been blind by bilateral progressively worsening glaucoma. This common, but rarely reported, condition was managed by behavioral approach of repeated blinking, intermittent eyes closure, and reassurance. While emotional, mood and cognitive disorders need to be ruled out, the condition, though frightening to the afflicted, is benign and remediable with simple, inexpensive approach. Health workers managing people with terminal blindness should always ask for the presence of hallucinations from their patients to forestall a preventable distress resulting from wrong perception without visual stimulus.

Key words: Hallucination, impaired vision, management, old age

Introduction

In 1769, Charles Bonnet described a syndrome in which vivid, complex visual hallucinations occurred in his 87-year-old psychologically normal grandfather who was nearly blind from bilateral cataract.^[1,2] The condition was given the name Charles Bonnet syndrome (CBS) by de Mossier in 1967.^[3] Though the phenomenon does not occur only in visually impaired elders, most people affected are elderly with visual impairment.^[4] Cataract, age-related macular degeneration or damage in other areas in the visual pathway may be involved.^[5,6] While the etiology of the syndrome is not clearly understood, the hallucinations in CBS are considered to represent “a release phenomenon” secondary to the de-afferentation of the cerebral cortex, analogous to that seen in the phantom limb syndrome.^[2,7] During normal vision the information received from the eyes actually stops the brain from creating its own pictures.^[7] In blindness the information reaching the brain is reduced appreciably.

The brain sometimes fill in these gaps by releasing new fantasy pictures, patterns, or old pictures that it has stored, thus the hallucinations.^[7-9] The hallucinations and the interpretations of the experience could be frightening to the afflicted.^[10]

The prevalence of CBS varies between 0.4%^[11] and as high as 40%.^[12] The actual prevalence has been hindered by nonreporting of this disorder,^[10] which could be due to the problems of disclosure for fear of being labeled mentally ill.

CBS needs to be differentiated from other causes of visual hallucination such as organic brain disorders and dementing illnesses, substance use disorders, schizophrenic disorders, and mood disorders. Unlike patients with mental disorders, virtually all patients with CBS retain insight into the unreal nature of their hallucinations.^[2] A careful history, physical examination, and mental state examination will distinguish CBS from these other differential diagnoses.

There is no specific treatment for CBS. Although, antidepressants anticonvulsants have been used for CBS with good effect in previous reports,^[13,14] the efficacy of these drugs in the treatment is somewhat questionable and should be reserved for those who exhibit high levels of distress and have not responded to conventional intervention.^[15,16] The treatment

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approach would also depend on other comorbid physical or mental disorders.^[7,17] Reassurance about the nature of the illness (i.e., not being a mental illness) could be highly comforting and all that may be needed. Combination of this and programmed blinking, intermittent closing and opening of the eyes have been reported as helpful.^[18] The best solution is finding effective treatment to the eye disorder because CBS has been reported to regress with effective treatment of the cause of visual loss and improvement in visual acuity.^[19,20]

A case report of a patient managed by the authors' team is presented here.

Case Report

About 85-years-old Mr. IA had been managed for bilateral glaucoma at the Eye Clinic of the University of Ilorin Teaching Hospital (UITH), Nigeria for about 7 years. He had been clinically blind (no light perception) without any improvement in his visual acuity and had been on supportive care for more than 3 years. His 71-year-old wife had noticed that he frequently hit imaginary objects with his guide stick (walking stick) for which they had quarreled several times previously. He was subsequently reported to one of the sons, a civil servant in the state capital who then thought that his father might be having a mental disorder, arranged for an appointment at the psychiatric clinic.

Mr. IA's complaint was the perception of images of people in front of him. Even though they were not talking, they were displaying complex bodily movements including dancing, eating, praying (e.g., raising hands, bowing, kneeling, etc., the Muslims way), being a Muslim. These experiences had been ongoing for about 8 weeks before the psychiatric appointment. He, occasionally, could identify people he had known before his eyes problems began. At a particular period he started recognizing his colleagues who died years before and became terrified by these vivid experiences. He had no strange experiences in other sensory modalities; his memory was judged satisfactory by the relations and was, according to them, a "normal old man" apart from the loss of vision and the recent events.

The patient did not have other medical complaints. Though hypertensive, the blood pressure was reported to be under good control. All the while the night sleep had been satisfactory and sleep seemed a period of relief from the visual experiences. He did not take alcohol or other substances of abuse. He had no previous history of mental illness.

On examination, Mr. IA spoke rationally unhindered by his experiences which he described quite amazingly: Complex visual hallucination in a state of clear consciousness. He was euthymic without any perceptual abnormalities at the time of examination which the patient described as the usual pattern when the objects of his hallucination could disappear momentarily and reappear again. His memory was good and recognized his experiences as "false" though with frightening potential.

Physical examinations were essentially normal for his age. Bilateral dry macular degeneration, pale optic disc with cup to disc asymmetry of greater than 0.4 bilaterally were recorded at fundoscopy. Other neurological examinations were satisfactory. Hematological and Biochemical findings were satisfactory.

He was reassured of the false nature of the visual experiences after explanations that he had no mental illness and that the problem could disappear. He was taught how to keep the images away by closing his eyes for sometimes and repeated blinking.

The relatives were educated on the nature of CBS and the importance of not attributing it to mental illness and not to prejudice the situation to his disadvantage. This behavioral method was explained to the understanding of the patient and his relatives and periodic appointment scheduled to monitor compliance with and effectiveness of the method.

Initial 2 weekly visits were later reduced to 4 and later 6 weekly. Over these periods there was no improvement in his visual acuity but the visual experiences had disappeared 6 months afterwards without using any drug.

Discussion

There are many definitions of the CBS. Our definition of CBS in this report emphasizes eye or visual pathway disease, with the phenomenology of the hallucinations as described by Charles Bonnet himself.^[18,21] CBS is benign and common. However, its poor reporting by the afflicted, their relatives, and even medical practitioners has not helped in the epidemiology of CBS. Visual loss or deprivation seems to be the prerequisites for developing CBS.^[22] Spontaneous regression of CBS does occur over a short period in some patients while in majority it could last for years.^[20] Though specific Serotonin Reuptake Inhibitors (SSRIs) and antiepileptics have been reported to be useful, each case should be managed according to

the presentation.^[23] A clear case of comorbid depression would definitely justify the use of antidepressants. In this case the patient met the criteria for Charles Bonnet and only reassurance and behavioral approach were employed.

In conclusion, doctors and relatives are advised to seek for hallucinatory experiences by asking the visually impaired about it. Doing this would go a long way at ameliorating the suffering of the visually impaired from this syndrome that could possibly be passed off as mental disorder. It would also strengthen the consultation liaison services between psychiatry and ophthalmology.

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