

## Charles Bonnet Syndrome; Presenting as “Innocent Spirits Within’: A Case Report

James Ayugi\*

Lecturer School of Medicine, Department of Psychiatry, University of Botswana, Private Bag 30 Lobatse Botswana.

Philip Opondo

Lecturer School of Medicine, Department of Psychiatry, University of Botswana, Private 00712 Gaborone Botswana

Anthony Olashore

Lecturer School of Medicine, Department of Psychiatry, University of Botswana, Private Bag 00712 Gaborone, Botswana.

Keneilwe Molebatsi

Lecturer University of Botswana, School of Medicine, Department of Psychiatry University of Botswana Private Bag 00712, Gaborone, Botswana

### Abstract

Charles Bonnet syndrome (CBS) is an under-recognized and under-reported disorder that involves visual hallucinations in visually impaired individuals. These patients have intact cognition, do not have hallucinations in any other sensory modalities, and retain insight into the unreal nature of their hallucinations. In most developing countries like Botswana where mental health and ophthalmology professionals are scarce, cases like Charles Bonnet Syndrome are likely to be misdiagnosed for psychosis/’madness’ with consequent inappropriate biological interventions. Our patient, a 90 year old blind widow pensioner, with no prior psychiatric history, complained to family members that she was seeing people without heads and sometimes without limbs following her. She felt tortured as these people followed her everywhere. She consulted her pastor about these visual hallucinations, and was told not to worry about them as ‘they were harmless spirits within her’. When she was eventually brought to the Hospital she was given a diagnosis of Charles Bonnet Syndrome and showed marked improvement after being given assurance about her sanity and antidepressants. There is need to increase awareness of rare psychiatric syndromes in the elderly like the Charles Bonnet Syndrome amongst clinicians since they can be easily missed or inappropriately managed more so since the population of the elderly is increasing in Botswana and many other sub-Saharan countries

**Keywords:** Charles Bonnet Syndrome, Hallucinations, Botswana

### Introduction

Visual hallucinations can be associated with a variety of settings: psychiatric diseases, delirium, neurodegenerative diseases, cerebral vasculopathies, epilepsy, drug intake, metabolic and endocrine disorders (Barodawala 1997; Manford 1998). Most commonly visual hallucinations occur in patients with poor bilateral visual acuity, but they have also been reported in individuals with unilateral or fluctuating visual loss (Menon 2008). In 1760 Charles Bonnet a Swiss philosopher (1720-1792), reported that his 89-year-old grandfather (whose eye sight was failing), had experienced well-formed visual hallucinations of men, women, carriages and buildings, which he knew were not physically present (Damas-Mora et al. 1982).

The syndrome which Charles Bonnet described was named after him, in 1967, by George de Mosier (Aditya et al. 2015). Though the diagnostic criteria for CBS remain controversial, the following are the most widely accepted: i) the presence of formed, complex, persistent or repetitive, stereotyped visual hallucinations; ii) full or partial insight into the unreal nature of the perceptions; iii) absence of hallucinations in other sensory modalities; iv) absence of mental disorders (Gold and Rabins 1989).

From 1760 to 1989 only 46 patients had been described as affected by this disease (Podoll et al. 1989). It has been claimed that cases of true CBS (i.e., complex visual hallucinations in the absence of neuropsychiatric disorder and with full insight) are exceedingly rare and most cases described in the literature are CBS plus, i.e., visual hallucinations in the presence of a neuropsychiatric disorder or with the sufferer totally lacking insight that the hallucinations are unreal (Howard and Levy 1994).

Most of these diagnostic criteria require the presence of complex visual hallucinations with insight. The accurate diagnosis of this distressing disease is challenging, but crucial considering the serious implications of alternative diagnoses (Lerario et al 2013). In this case report, we present a 90 year old widow, with complex visual hallucinations but no neuropsychiatric disorder with full insight; who was referred to our psychiatric

department after the visual hallucinations failed to resolve despite her pastor's reassurance that the perceptual disturbances were due to her 'inner innocent spirits'.

### Case report

EM a 90 year old widow pensioner with no prior psychiatric complaints, was referred to the psychiatric outpatient accompanied by her daughter, with a history of seeing what she described as 'faces of ghosts and people unknown to her'. She walked with a cane and her daughter's support. She reported that she would see these people in different forms; sometimes without heads and sometimes without limbs. These perceptual disturbances had been going on for the last six years. These visual hallucinations started when her vision was declining. She felt angry most of the time with these people as it was like torture to her. She at one time consulted her pastor from the local church about these visual hallucinations, and was told not to worry about them as 'these were harmless spirits within her'.

The visual disturbances occurred more in the evenings and at night disturbing her appetite and sleep considerably. At the interview she could see these people listening to her being interviewed as they moved up and down. She denied any other visual disturbances, such as diplopia. While experiencing these hallucinations, the patient had no change in mental status and maintained full insight and awareness of the unreality of her experiences though they were confusing to her before reassurance. She further denied auditory or other sensory hallucinations as well as headaches, fever, or trauma. There was no history of drug or alcohol abuse. The patient had been reviewed by ophthalmologist in 2007, and diagnosed with blindness due to open angle glaucoma on the right eye and traumatic eye injury on the left eye. She had been given an artificial eye on the left side. She had also been hypertensive for the last twenty five years and was well controlled on Hydrochlorothiazide and Nifedipine.

On physical examination she appeared well and was not in any acute distress though she walked with a cane and support because chronic osteoarthritis. She was oriented to person, place and time. Her vital signs were: blood pressure 200/86 mmHg, pulse rate 66 beats/minute and regular, respirations 22 breaths/ minute, temperature of 36.8°C. Neurological evaluation was done to exclude any organic causes. They were essentially normal. On mental status examination, the patient was well oriented, conscious, cooperative, and communicated well. The modified Mini-Mental State Examination was normal, (after dis regarding some questions because of the blindness).

Routine hematological investigations, electrolytes, blood and urine cultures, and drug screen tests were within normal limits. The patient's Brain magnetic resonance imaging (MRI) was essentially normal with signs of age-related changes. The findings of electroencephalography showed normal background activities without any paroxysmal patterns. She had no family history of mental illness, epilepsy or dementia.

In 2012, the patient had consulted her medical officer at the local hospital for her visual hallucinations and was put on a first generation antipsychotic, which she took for a few months. She reported that the hallucinations subsided, but she also developed side effects of drooling saliva and limb stiffness and hence stopped the medications. When the visual hallucination re occurred again even after her pastor's reassurance then she decided to consult again at our outpatient clinic.

After the initial evaluation, the patient and the daughter were given psycho education and told of the benign nature of the visual hallucination and reassured that the patient was not mentally ill or 'mad'. The patient was started on Fluoxetine 20mg per day orally. After six months the visual hallucinations though still present had reduced in intensity and the patient no longer felt tortured or angry at the faces or people she saw. Overall the family members were greatly relieved to learn that their hallucinations were not due to a mental disease.

### DISCUSSION

Though the diagnostic criteria for CBS remains controversial and at times ambiguous (Menon et al. 2003; Ffytch and Howard 1999; and Plummer et al.2007) our case presented with complex visual hallucinations with insight and awareness of the unreality of the perceptual disturbances experienced. Furthermore there were no hallucinations in other sensory modalities and the patient did not have any other concurrent cognitive, psychiatric, or neurological disease. This met the criteria of Charles Bonnet Syndrome (.Damas-Mora et al. 1982).

Although the visual disturbance in CBS is referred to as including 'hallucinations', this is a misnomer, because these patients have insight and awareness of the unreal nature of the images they 'see'. It is therefore more suitable to refer to these hallucinations as pseudo hallucinations (Menon et al.2003).

In our case there was visual loss. The reported prevalence of Charles Bonnet syndrome in people with visual impairment or loss is reported to be 10%–38(Zerilli and Bisighini 2014).This wide range of prevalence of CBS in people with visual impairment, is attributed to differences in definition, history-taking and patients' unwillingness to disclose the symptom because of concern that it implies mental illness ( Jackson and Ferencz

2009).

Historically, not all authors have cited loss of vision as a component of the diagnosis (Jackson et al. 2007). Though vision loss commonly occurs with CBS, it may not be required for diagnosis. ((Menon et al. 2003 and De Morsier 1967). In our case, there was vision loss in both eyes. As suggested by Khan et al. (2008), combined acuity measures may serve as a better predictor for visual hallucinations than just looking at best and worst acuity independently in either eye. DeMorsier (1969) the first to coin the term “Charles Bonnet syndrome,” did not mandate visual dysfunction but acknowledged its frequent coexistence with CBS.

Although patients may at first be deceived by the hallucination, they will quickly come to retain insight into the unreal nature of the hallucination (Menon et al. 2003). In our case, initially though the patients seemed to be confused by the hallucinations, later they recognized their unreal nature especially after brief explanations. The patient’s pastor’s explanations of these experiences as being the patient’s ‘own inner harm less spirits’, fitted logically with explanatory models of African ancestral beliefs common in Botswana. This is similar to the observations of others that in CBS, the hallucinations often seem to fit in logically with the surrounding scenario (Kester 2009). For a diagnosis of Charles Bonnet syndrome, the patient should appreciate that the perceptions are not real after this has been fully explained to them. This was the case in our patient.

The CBS hallucinations should also not occur or be associated with hallucinations in any other sensory modalities, such as auditory or olfactory (Rovner 2006). In our cases there were no other hallucinations in any other modality. Historically, the CBS hallucinations are perceived in most cases as pleasant to the individual experiencing them (Menon 2003). However in our case, the patient was often angry at the people she saw day and night. She felt as being “tortured” by these perceptual disturbances. She found it difficult to sleep and had reduced appetite. The distressing nature of these visual disturbances have been reported elsewhere. Our patient complained that the visual hallucinations were more in the evenings and at night disturbing her sleep considerably. This observation is supported by the fact that CBS more often occurs in the evening or in situations with inadequate lighting conditions (Ball 1991).

It has been reported that the specific risk factors for CBS include age (>64 years), social isolation, and poor bilateral visual acuity (Damas-Mora et al. 1982; Gold and, Rabins 1989; Jacob et al. 2004). In our case, the patient was much older at 90 years. She was also a widow who had lost her husband in 1994, and stayed alone most of the time except from occasional visits by one of her daughters. The patient also suffered from bilateral visual loss. Podoll et al. (1989) and Teunisse et al. (1999), have also pointed out the importance of loneliness as a sociodemographic risk factor for CBS.

Furthermore, there is emerging evidence that CBS may not be as transient as traditionally held. One study has reported hallucinations continuing for 4 years or more in 45% of people with CBS (Santhouse 2000) while another found 41% of people with CBS had an estimated minimal average duration of 8 years. (Khan 2008). In our case, the patient has been having hallucinations for the last 6 years. For most people with CBS, symptoms may continue for many years with negative consequences in around a third of the cases (Cox and ffytche 2014)

Currently, there is no universally accepted treatment for Charles Bonnet syndrome (Aditya) Visual hallucinations often resolve once the underlying cause of vision loss is rectified but in some cases, they can be persistent for several years. (Schultz and Meizack 1991; Tueth et al. 1995; Coletti et al. 2005; and Siatkowski et al. 1990). A few case reports indicate that Charles Bonnet syndrome has been successfully treated with medications including risperidone, cisapride, valproate, carbamazepine, clonazepam, selective serotonin reuptake inhibitors, gabapentin and olanzapine.

In our case, the patient was started on Fluoxetine 20mg per day orally. After six months, the visual hallucinations though still present had reduced in intensity and the patient no longer felt tortured or angry at the faces or people she saw. Reassurance of the benign nature of the hallucinations was a great relief both to the patient and the relatives.

## Conclusion

In Botswana, mental health and ophthalmology professionals are either scarce or not available in most areas of the country. This often leads to misdiagnosis and inappropriate biological interventions of cases like Charles Bonnet Syndrome. Stigma and cultural myths about mental disorders in Botswana and most of Southern Africa may also prevent patients especially from non-urban centers from seeking professional help. Given the increasing aging population in Botswana and other African countries, the chances of eye and mental care providers encountering Charles Bonnet syndrome (CBS) will become be high in the coming years. Hence high index of suspicion should be exercised for CBS in elderly patients with ocular impairment who present with visual perceptual disturbances.

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