Charles Bonnet syndrome in a young adult with diabetic retinopathy

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Introduction

Charles Bonnet syndrome is defined as complex persistent visual hallucinations occurring in patients with visual pathway pathology in the absence of a mental disorder. The patient has insight and is aware of the unrealistic visions. Charles Bonnet syndrome can occur with lesions located anywhere along the central visual pathway, from the eye to the calcarine fissure (Brucki et al, 2009). This rare condition was first studied by Charles Bonnet, a Swiss clinician, in 1760. Although it can affect people of any age, it is more frequent among older people. This article presents the case of a young adult aged 27 years with a diagnosis of type 1 diabetes and diabetic retinopathy who was referred to the mental health liaison team at the acute general hospital with visual hallucinations. It highlights the importance of considering Charles Bonnet syndrome in any age group with visual pathway pathology.

Discussion

Charles Bonnet syndrome is usually seen in older people, aged 78–85 years (Siddiqui et al, 2016). About 11–15% of people with impaired sight have visual hallucinations. Fewer case reports have described Charles Bonnet syndrome in younger people (Jones and Moosajee, 2020). This may be a result of a lack of awareness among clinicians and difficulty in diagnosis, for example, it may be investigated as schizophrenia or schizoaffective disorder.

Case report

A 27-year-old woman with type 1 diabetes was admitted to the acute hospital with diabetic ketoacidosis which had resolved. She had multiple diabetic complications including diabetic retinopathy. She was blind in the left eye and had 20% vision in the right eye for the last 8 months. Other complications included chronic kidney disease on dialysis, gastroparesis, two previous admissions to the intensive treatment unit for diabetic ketoacidosis and multiorgan failure, and infective endocarditis of the tricuspid valve.

During her admission the patient was noted to be responding to unseen stimuli in the late evenings and was referred to the mental health liaison team. Initially, she was reluctant to disclose her symptoms with the fear that she would be admitted to the mental health unit as she believed she was not mentally unwell.

On further reassurance she reported that she had seen vivid images of young children in Victorian outfits playing around her feet on most evenings for the past 6–8 months. This occurred when she sat in dim light watching television. She was aware they were unreal, and they did not scare her but occasionally irritated her. On other occasions she saw images in keeping with her surroundings, for example she saw street lights and cars on the hospital door which she mistook to be a window. She was not frightened or threatened by the images. She spent most of her time with her partner who talked a lot about cars and her partner's mother who worked with children. The patient wondered if there was a correlation between the images and her conversations.

On examination, she did not have any other psychopathology and had full insight into the visual hallucinations. Her cognition was intact. A computed tomography scan of her head was normal.

Charles Bonnet syndrome was explained to her in detail and she felt reassured. She was advised to do eye exercises, to increase retinal impulses by increasing ambient light and to avoid social isolation.

Unfortunately, she died some months later from medical complications.

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Table 1. Diagnostic criteria for Charles Bonnet syndrome
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

adapted from Jan and Del Castillo (2012)

Learning points

- Charles Bonnet syndrome should be considered as a diagnosis in any age group in a person with visual pathway pathology presenting with visual hallucinations.
- Patients with Charles Bonnet syndrome are often reluctant to disclose their symptoms and require reassurance.
- Increased awareness among professionals is important for the diagnosis of Charles Bonnet syndrome.
- Patient education can reduce the psychological burden and improve their ability to cope with the symptoms.

The diagnosis is made when the hallucinations occur in patients with vision loss in the absence of psychosis, delirium or other causes (Table 1).

It was initially thought that the hallucinations resolve within 12–18 months, but hallucinations have been present for 5 years after the onset (Siddiqui et al, 2016).

Charles Bonnet syndrome frequently goes unrecognised in clinical practice as patients fear being labelled 'mentally unstable' and are reluctant to admit their hallucinatory experience. Reassurance and explanation that the hallucinations are benign and do not signify mental illness will have a powerful therapeutic effect (Siddiqui et al, 2016).

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