

Charles Bonnet syndrome: A case report

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DOI: <http://doi.org/10.4038/sljpsyc.v8i1.8138>

Abstract

A 72 year old female presented with claims that she was seeing well formed, detailed images of people in her home and garden. While this was suggestive of visual hallucinations, she retained some insight into this phenomenon. She had no symptoms of a mood disorder or dementia, but was found to have impaired vision with macular degeneration. She received a

vision with macular degeneration. She received a diagnosis of Charles Bonnet Syndrome and was treated successfully with low dose olanzapine as well as follow-up with ophthalmologist.

Key words

visual hallucinations, insight, impaired vision.

SL J Psychiatry 2017; 8(1): 35-36

Introduction

Charles Bonnet was a Swiss philosopher who in 1760, described vivid hallucinations experienced by his grandfather. He recognised that his grandfather's thinking was clear and that the hallucinations were associated with loss of vision. This case report describes a similar presentation of a female patient in Sri Lanka.

Presentation

Miss X, a 72-year old female was brought to the psychiatry clinic by her sister who was concerned about her sister's recent behaviour. According to her, Miss X, who was living alone at home, had prepared and laid out lunch for two people at her own home where she lived by herself. She had done this for three consecutive days despite the fact that there was nobody else present, to enjoy her meal. When questioned, Miss X had replied that she had prepared the meals for the previous president of Sri Lanka, and his wife, whom she had seen in her garden for the past three days. She was hoping they would join her for lunch, and she was wondering why they declined to do so.

She reported that apart from the past president and his wife, she had seen several other 'visitors' in her home over the past two months. She had seen several young children playing in her back garden and a young woman, whom she had seen seated in her living room reading a book. Miss X was not alarmed by the presence of these strangers in her home, although she said she did wonder whether they were real. She was not distressed by these experiences, and her biological functions were unaffected.

She did not have a history suggestive of a mood disorder or dementia. She was diagnosed to have type 2 diabetes, for which she was on regular treatment. She also complained of having experienced changes of her vision since 10 months prior to presenting to us, in the form of dark blurry areas in the centre of her vision, which was affecting her ability to read.

Mental state examination

She was a small made female who appeared appropriate to her stated age and was cooperative throughout the interview. There was no disinhibited or inappropriate behaviour. Her speech was both relevant and coherent and her mood was euthymic. She had no firm convictions suggestive of delusions. She elaborated on the people that she was seeing in her house and garden over the past few days, which amounted to visual hallucinations. There were no hallucinations in any other modality. Her cognitive examination revealed a MMSE score of 26/30. Frontal lobe assessment revealed good conceptualisation, mental flexibility, programming and inhibitory control. Comprehensive parietal and temporal lobe functions were not done, but the clock drawing test did not reveal any spatial dysfunction. Her insight was partial in that while she was quite convinced of the presence of certain 'visitors' at home, she also questioned whether some of what she was 'seeing' was real.

Physical examination

On referral to the ophthalmology unit, Miss X was diagnosed to have exudative age-related macular degeneration and was offered laser therapy and intraocular antiangiogenic therapy.

Diagnosis and management

Based on the fact that Miss X was experiencing formed, complex, persistent and repetitive, stereotyped hallucinations, with partial retention of insight into the unreal nature of the hallucinations, absence of hallucinations in another modality, and absence of primary or secondary delusions, with associated visual loss, she was diagnosed to be suffering from Charles Bonnet Syndrome (1).

She was treated with 5mg of olanzapine at night and was referred for follow-up to the ophthalmologic team. On review in a fortnight, she claimed that although the images were still present, she was more certain that they were 'not real' and she had stopped acting on these hallucinations.

Discussion

The reported prevalence of Charles Bonnet syndrome in people with visual impairment is 10%-38%. This wide range is attributed to differences in the definition, and difficulties in gathering of information, particularly from those with cognitive impairment (2).

The literature indicates that not all authors cite loss of vision as a diagnostic criteria (3). Nevertheless, the association of loss of vision is now widely thought to be an important requirement for the diagnosis (4). The hallucinations experienced in this syndrome can range from simple patterns of colour to elaborate images, and are usually associated with bilateral visual loss due to glaucoma, macular degeneration and cataract. Our patient presented with complex hallucinations, associated with macular degeneration.

Despite the fact that insight into the unreal nature of the images is required to make the diagnosis, most patients may not have full insight as soon as the symptoms appear. They may be unsure about what they are experiencing and may act on their hallucinations. With time, and with adequate explanation, they often come to realise that what they are seeing is not in fact real (4). We noted these changes in insight in our patient as well. The hallucinations in Charles Bonnet syndrome are most commonly attributed to lack of true visual input to the brain. This is said to lead to a 'release phenomenon' very similar to the phantom limb symptoms after amputation (5).

Although it is reported that hallucinations may disappear with or without treatment, and that explanations and reassurance alone may be sufficient for management, most patients are given a trial of medication. Carbamazepine, gabapentin, olanzapine, risperidone, ondansetron and mirtazapine have been reported to be beneficial in reducing the hallucinations (6-8).

Given the prevalence of Charles Bonnet Syndrome among the visually impaired, physicians and ophthalmologists should have a low index of suspicion about inquiring for visual hallucinations. If a diagnosis of the syndrome is made, the patient should be sufficiently educated about the nature of the hallucinations and reassurance should be provided to the patient and their caregivers, who otherwise may be very worried about these experiences, as was the sister of our patient.

Acknowledgements

The author gratefully acknowledges the assistance of the patient and her family, in the preparation of this case report.

Declaration of interest

None declared

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