Charles Bonnet Syndrome in a Geriatric Female Patient: A Case Report

To the Editor: Charles Bonnet syndrome is a condition that causes visual hallucinations in patients with visual anomalies such as macular degeneration, glaucoma, and optic pathway damage.[1] We report a case of Charles Bonnet syndrome due to macular degeneration.

Case report. An 87-year-old white woman presented to the hospital due to visual hallucinations of 2 weeks' duration associated with worsening visual impairment. She reported seeing little children on her roof and a man kissing them in addition to men by her window. She asked her neighbors if they saw anything, which they did not. She called the police due to the persistence of the visual hallucinations and concern for what she was seeing. The police saw no evidence to substantiate her hallucinations. There was no prior history of visual or auditory hallucinations. She denied any recent changes in her medications, history of seizure disorder, or any recreational substance or hallucinogen use. Cognition was mostly intact after a standardized Mini-Mental Status Examination[2] was conducted, and she reported no change in her sleep-wake cycle. No primary or secondary delusions were documented. The patient's daughter confirmed that she had been having visual hallucinations for 2 weeks that coincided with failing vision, and she was sent to the emergency department. Her past medical history included a history of hypertension, arthritis, glaucoma, hyperlipidemia, and hypothyroidism. Examination in the emergency department was unremarkable except for the visual hallucination that she endorsed. Laboratory findings revealed that her serum sodium level was 141 mmol/L, potassium was 3.6 mmol/L, chloride was 102 mmol/L, blood urea nitrogen was 9 mg/dL, and creatinine was 0.8 mg/dL. Computed tomography of the brain, urinalysis, and electroencephalography revealed no acute problem.

A trial with olanzapine 2.5 mg daily for 2 days did not ameliorate her visual hallucination; thus, it was discontinued after a call to her ophthalmologists revealed that she was diagnosed with macular degeneration in 2014 when she complained of spots of blurred vision and difficulty in seeing. The patient was reassured that her visual hallucinations might be due to the macular degeneration and thus were not real. She verbalized understanding and was discharged despite the persistence of the hallucinations. She did not report the hallucinations to be as distressing as before because she was able to develop insight into their unreal nature. This 87-year-old patient had the capacity to live with her continuing visual hallucinations with no need for medications.

Visual hallucinations that accompany visual abnormalities are seen in patients with Charles Bonnet syndrome.[1] These hallucinations are persistent and vivid, and the characters tend to be small as was seen in our patient.[3] The visual hallucinations do not extend to other sensory modalities such as hearing, smelling, or tasting as was evidenced in this case and typically fit into the patient's milieu. Antipsychotic treatment did not ameliorate the visual hallucination in our patient or in other cases published in the literature.[4] Studies have reported a prevalence of Charles Bonnet syndrome that ranges from 10%–40%, and the symptoms begin when vision starts to fail.[5] Charles Bonnet syndrome may occur due to deafferentation produced by disruption in visual input to the brain causing a release phenomenon, which bears similarity to phantom limb following limb amputation. It is possible that when a patient visualizes an object, the information received by the brain prevents it from creating its own images. Distortion of this process in the visually impaired leads the brain to attempt to fill in gaps by utilizing prior stored images, which the patient might perceive as visual hallucinations.[6] This case demonstrates the need for clinicians to be conversant with Charles Bonnet syndrome and its potential to be misdiagnosed, thus subjecting patients to unnecessary pharmacotherapeutic intervention.

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