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A Case of Charles Bonnet Syndrome Following Acute Postoperative Blindness

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Abstract: We present a case of Charles Bonnet syndrome that occurred secondary to acute postoperative blindness in a 47-year-old woman. She had a 13-year history of tuberculumsellae meningioma. After she underwent surgical resection of residual tumor that had adhered to the left optic nerve, visual acuity worsened postoperatively until there was no light perception in either eye. Four months later, she experienced visual hallucination. After the 2-year follow-up period, she began experiencing recurring visual hallucinations, at intervals of several months. Initially, she was puzzled and felt that these conditions were part of the visual function recovery process. After a while, however, she became aware that her perceived visual imagery was not real. It was explained to her that the visual experiences were illusory, and she was reassured that she had no mental illness and that her problem could be alleviated. In conclusion, appropriate support and reassurance should be offered to those who cannot cope with their hallucinations.
Keywords: Charles Bonnet syndrome, Visual hallucination, Blindness, Acute postoperative blindness, Tuberculumsellae meningioma, Optic nerve.

INTRODUCTION

Charles Bonnet syndrome is characterized by the occurrence of complex visual hallucinations, with fully or partially preserved patient insight, in the absence of delusions or hallucinations due to other modalities [1–6]. This syndrome occurs predominantly in elderly visually impaired people [1–6]. We present a case of Charles Bonnet syndrome following acute postoperative blindness.

CASE REPORT

A 47-year-old woman with tuberculumsellae meningioma had been managed at our hospital. Thirteen years before presentation, she had undergone surgical resection of a tumor that involved the optic chiasm, the brain structure where the two optic nerves meet within the optic canal. During the 12-year follow-up period, the residual tumor gradually enlarged. She was admitted for surgical resection of residual tumor. On ophthalmological examination, her best corrected visual acuity was 0.03 in right and 1.0 in left eye, respectively. Both anterior segments were normal, and the ocular pressures were normal. Both optic discs revealed temporal pallor resulting from optic atrophy. She underwent surgical resection of residual tumor that had adhered to the left optic nerve. Postoperatively, her visual acuity worsened until there was no light perception in both eyes.

Four months later, she initially experienced visual hallucination, reporting that she saw an image of a man wearing red clothing. After the 2-year follow-up period, at intervals of several months, she experienced recurring visual hallucinations. These recurrent visual hallucinatory disturbances produced a lively array of images: a man wearing red clothes, green turf, western dancing, international children, colorful ninja wearing red or pink clothing, ruled writing paper, and a program section from a newspaper. She was able to provide detailed descriptions of the clothes, colors, and movement of the items. Initially, she was puzzled and believed that these conditions were part of the process of recovery of her visual function. After a while, she gained awareness that these images were not real. The findings of physical examinations were unremarkable. She had no previous history of mental illness. Therefore, the patient was diagnosed with Charles Bonnet syndrome. She was given explanation that her visual experiences were not real, and she was reassured that she had no mental illness and that her problem with visual hallucinations could be alleviated. Although there was no improvement in her visual acuity, her visual hallucinations have decreased in frequency, and she has been able to cope with the hallucinations.

DISCUSSION

Tuberculumsellae meningiomas represent a distinct clinical entity among the intracranial meningiomas. They arise from the tuberculumsellae, planumsphenoidale, and chiasmatic sulcus, and they account for 5% to 10% of all intracranial meningiomas [7]. The tumor characteristically involves the optic

chiasm and optic nerves, causing a progressive visual loss that may result in blindness [7, 8]. Various outcomes of tuberculumsellae meningiomas have been reported [7, 8]. In some cases, postoperative visual deterioration developed.

The diagnosis of Charles Bonnet syndrome is based on the following criteria: occurrence of at least one complex visual hallucination within the past 4 weeks; >4 weeks between two episodes of hallucination; full or partial retention of patient insight regarding the unreal nature of hallucinations; absence of hallucinations due to other sensory causes; and absence of delusions [2]. Based in part on these diagnostic criteria, the present patient was diagnosed as having Charles Bonnet syndrome following acute postoperative blindness.

The prevalence of Charles Bonnet syndrome varies considerably among studies, ranging from as low as 0.5% [5] to as high as 63% [4]. This may result partly from patients' concerns about reporting the disorder. Hallucinatory experiences appear to be distinctly unpleasant for patients. The imagery visualized can be frightening or otherwise disturbing, and patients often experience anxiety with regard to their mental health [4]. Therefore, the actual prevalence has been hindered by non-reporting of this disorder, a circumstance that could be related directly to hesitancy in disclosing the episodes for fear of being labeled mentally ill [6].

Although this patient had some emotional distress caused by acute blindness, she was told of the false nature of the visual experiences, given explanations that she had no mental illness, and reassured that the problem could be reduced.

Visual hallucinations cause distress in Charles Bonnet syndrome patients, even if they have full insight into the unreal nature of their hallucinatory episodes, and caregivers also face challenges in the management of the patients [2]. Some patients find ways of controlling their hallucinations or of distinguishing between a real sight and a hallucination.

CONCLUSION

Although this case lacks novel findings, we emphasize that appropriate support and reassurance should be offered to those who cannot cope with their hallucinations.

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