

## Commentary

Visual hallucinations are sensory experiences which occur in the absence of external stimulation of the visual pathway and may be categorized as being either elementary or complex.<sup>[1,2]</sup> Elementary hallucinations consist of lights or shadows, whereas complex hallucinations are formed images of objects, animals or persons. The Charles Bonnet syndrome (CBS) is characterized by vivid, complex and recurrent visual hallucinations occurring in psychologically normal and often visually impaired people. Patients often retain insight into the unreal nature of their hallucinations.<sup>[1,2]</sup>

CBS is best described in elders (probably due to increased prevalence of visual impairment in this group), but may occur at any age. Any physiological or pathological condition which results in deprivation of visual stimuli to the brain may, in theory, cause CBS. The prevalence rate of CBS varies widely from less than 1% to 40%; this inter-study variation may partly be explained by different patient populations screened, differences in inclusion criteria (e.g., visual acuity), inconsistent depth of questions, the patients' reluctance towards sharing their experiences, and possibly cultural or ethnic differences.<sup>[3]</sup>

The article “*Charles Bonnet syndrome – a case report*” by Issa and colleagues describes an 85-year-old blind man who was observed by his relatives to hit imaginary objects with his walking stick.<sup>[4]</sup> When brought for psychiatric assessment, he was diagnosed with CBS. At the time of assessment his symptoms had lasted for about eight weeks. The patient did suffer from some degree of distress as a result of his symptoms. He was educated about his condition and taught simple methods to cope with his hallucinations. Six months later his symptoms resolved without any other treatment. His visual acuity was reported to remain stable during the entire course.

Visual impairment is an important factor contributing to the development, and perhaps perpetuation of CBS.<sup>[1-3,5]</sup> Severe vision loss as well as acute fluctuations in visual acuity have been described as a trigger for CBS development.<sup>[6]</sup> The natural course of CBS is variable and spontaneous regression has been described, though it may take several years before symptoms resolve.<sup>[1]</sup> The distress experienced by the patient in the present study is not uncommon in CBS and can interfere with quality of life. Indeed, about one out of three patients experience moderate or severe distress as a direct result of CBS.<sup>[7]</sup> Strategies to improve vision when possible in combination with patient education and counseling may be sufficient in most cases of CBS.<sup>[1-3,8]</sup> The role of pharmacological interventions in the treatment of CBS is questionable and can be considered in cases where CBS results in severe distress.<sup>[9]</sup> Thus, CBS is a common disorder in the visually impaired and may lead to unnecessary distress in patients. Awareness of the risk factors and clinical presentation of CBS is therefore vital in order to identify and, when possible, treat it.

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## References

1. Menon GJ, Rahman I, Menon SJ, Dutton DG. Complex visual hallucinations in the visually impaired: The Charles Bonnet syndrome. *Surv Ophthalmol* 2003;48:58-72.
2. Teunisse RJ, Cruysberg JR, Hoefnagels WH, Verbeek AL, Zitman FG. Visual hallucinations in psychologically normal people: Charles Bonnet's syndrome. *Lancet* 1996;347:794-7.
3. Schadlu AP, Schadlu R, Shephard JB 3<sup>rd</sup>. Charles Bonnet syndrome: A review. *Curr Opin Ophthalmol* 2009;20:219-22.
4. Issa BA, Yussuf AD. Charles bonnet syndrome, management with simple behavioral technique. *J Neurosci Rural Pract* 2013;4:63-5
5. Vukicevic M, Fitzmaurice K. Butterflies and black lacy patterns: The prevalence and characteristics of Charles Bonnet hallucinations in an Australian population. *Clin Experiment Ophthalmol* 2008;36:659-65.
6. Meyer CH, Mennel S, Hörle S, Schmidt JC. Visual hallucinations after intravitreal injection of bevacizumab in vascular age-related macular degeneration. *Am J Ophthalmol* 2007;143:169-70.
7. Singh A, Sorensen TL. The prevalence and clinical characteristics of Charles Bonnet Syndrome in Danish patients with neovascular age-related macular degeneration. *Acta Ophthalmol* 2010;90:476-80.
8. Singh A, Sorensen TL. Charles Bonnet syndrome improves when treatment is effective in age-related macular degeneration. *Br J Ophthalmol* 2011;95:291-2.
9. Hartney KE, Catalano G, Caralano MC. Charles Bonnet syndrome: Are medications necessary? *J Psychiatr Pract* 2011;17:137-41.

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