

## LETTER TO THE EDITORS

Takeshi Terao · Yasuko Shiraishi

**Answers from the authors**

Received: 23 February 2005 / Accepted: 18 March 2005 / Published online: 18 May 2005

Thank you very much for your comments about our article (Shiraishi et al. 2004) where we suggest that dynamic or acute change in visual acuity (lowering visual acuity) but not static or chronic visual impairment (low visual acuity) has a greater impact on the onset of Charles Bonnet syndrome (CBS) in some patients. With respect to our suggestion, Tan & Sabel (2005) propose that denervation hypersensitivity following lowering visual acuity triggers visual hallucinations and recovery process including visual system plasticity eliminates visual hallucinations. We agree with their proposal, although this hypothesis should be investigated by functional brain studies longitudinally.

Furthermore, Tan & Sabel (2005) indicate that CBS may in fact be a good thing since hallucinations may correlate with adaptive neuroplasticity and periods when visual functions are recovering. We cannot agree

with their indication because CBS has various causes (Terao, 2002) and some patients with CBS may develop dementia with Lewy bodies (DLB). That is to say, there is a subtype of CBS which is later proven to be a prodromal symptom of DLB. Of course, hallucinations of DLB are not CBS, but apparent CBS may occur in the early stage of DLB (Terao & Collinson, 2000). One of the reasons for this conflicting situation is that existent diagnostic criteria for CBS do not necessitate optic pathology, and another reason is that all the criteria are exclusively based on cross-sectional observations (Terao, 2002).

In conclusion, Tan & Sabel's (2005) hypothesis can be probably applied to some patients with CBS but not to all CBS patients. CBS is not always a good thing because some patients may develop DLB.

**References**

1. Shiraishi Y, Terao T, Ibi K, Nakamura J, Tawara A (2004) Charles Bonnet syndrome and visual acuity. *Eur Arch Psychiatry Clin Neurosci* 254:362–364
2. Tan CSH, Sabel BA (2005) Dynamic changes in visual acuity as the pathophysiologic mechanism in Charles Bonnet syndrome (visual hallucinations). *Eur Arch Psychiatry Clin Neurosci* (in press)
3. Terao T (2002) The present state of Charles Bonnet syndrome. *Psychogeriatrics* 2:6–14
4. Terao T, Collinson S (2000) Charles Bonnet syndrome and dementia. *Lancet* 355:2168

T. Terao, MD, PhD (✉)  
Department of Neuropsychiatry  
Oita University Faculty of Medicine  
Hasama-machi, Idaigaoka 1-1  
Oita 879-5593, Japan  
E-Mail: terao@med.oita-u.ac.jp

Y. Shiraishi  
Department of Psychiatry  
Yahata Municipal Hospital  
Yahata, Japan