Reviewer’s report

Title: Visual Neglect in Posterior Cortical Atrophy

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Reviewer: David Wilkinson

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The authors report an investigation into the frequency and nature of visual disorder following posterior cortical atrophy (PCA). The results indicate that both left- and right-sided hemi-spatial neglect is more prevalent than hitherto believed, underlining the need to conduct specific screens for this refractory and debilitating disorder. The study appears to have been competently carried out and will be of interest to those involved in the diagnosis and management of PCA. Prior to publication there are, however, a number of points that require clarification and/or amendment.

1. The criterion for inferring homonymous hemianopia is a little weak. While the visual confrontation method can provide a quick and dirty estimate of visual field integrity, severe neglect may sometimes be mistaken for field loss. For this reason, corroborative data from MRI or formal perimetry is desirable, as is evidence that contralesional detection does not improve at more central eccentricities. Looking at Table 2, I wonder if patients 10, 11 and 12 in fact suffer from ispiresional capture as opposed to hemianopia? If the latter is true then without formal perimetry it is difficult to ascertain if the field deficits are partial or full.

2. While the assessment of co-morbid disorders (e.g. agnosia, apraxia, episodic memory) is informative, more detail is needed about the specific tests that were administered. To what extent might pathological performance on these tests be driven by an underlying spatial neglect?

3. The cut-offs for abnormal performance were based on norms from a previous control sample. The demographic characteristics of this sample need to be described. More generally, are the authors able to derive their cut-offs from formal inferential as opposed to descriptive procedures?

4. Patient 19’s bisection performance shows considerable variation across trials 1 and 5 which, coupled with her accurate performance on the Bell’s test, raises the question as to whether she really suffers from a systematic leftward neglect.

5. The authors suggest that the relatively high incidence of right-sided neglect may reflect bilateral damage. This argument would be more compelling if images were shown confirming the presence of bilateral atrophy in these patients. On a related point, it would be helpful to the uninitiated if the atrophy in Figure 1 was annotated.
6. In the Discussion, are the authors able to comment on why neglect was more prevalent in their PCA study than the one conducted by Mendez et al., (2002)? One wonders if the incidence of neglect would have been even higher had a more extensive neglect battery, such as the BIT, been administered?

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'