Reviewer's report

**Title:** Progressive Transcortical Sensory Aphasia and Progressive Ideational Apraxia Owing to Temporoparietal Cortical Atrophy

**Version:** 2
**Date:** 13 May 2015

**Reviewer:** Jordi A. Matias-Guiu

**Reviewer's report:**

The authors report two cases of progressive aphasia associated to ideational apraxia. Cases were studied by cognitive examination and SPECT, and were followed during at least 3-5 years. Cases reported confirm the existence of some cases of progressive aphasia associated to a more posterior impairment. Four additional and similar cases are reported in the literature recently, showing an overlapping form of progressive aphasia and posterior cortical atrophy. In my opinion, some changes are necessary prior to the publication of the manuscript.

The manuscript has some strengths. The cases reported are atypical, and they confirm the existence of an overlapping form of progressive aphasia with more posterior impairment (occipital impairment or visuospatial impairment or apraxia). This issue was suggested previously by Wicklund et al. 2013, and Garcia-Azorin et al. 2014. Cases are relatively well studied and there is a long follow-up.

- The authors used the term “hypometabolism” several times in the paper (in the abstract; in background line 90, 109; in the main text line 242, line 261). This term is not correctly used in the paper, due to patients were studied by means of SPECT (and not by PET). Replace it by “hypoperfusion”

- Regarding the first patient: Was there some visuospatial/visuoperceptive impairment? How did you assess it? And memory? Clinical report may be suggestive of a form of posterior cortical atrophy with greater impairment in language.

- Language examination and cognitive examination (scores in the different tests) should be showed in a Table.

- Hypoperfusion is extended to occipital lobe?

- In my opinion, the discussion and the article may be further improved by the consideration of these patients as two forms of atypical progressive aphasia (not fulfilling the consensus criteria by Gorno-Tempini et al 2011), with additional posterior deficits. In both patients, a more posterior impairment on SPECT than in typical logopenic PPA patients was observed; both had ideational apraxia; and at least in the second patients, significant visuospatial impairment was detected. For these reasons, these patients had some features of PPA, and some features of posterior cortical atrophy (although predominantly on the left-side).

- The following reference should be added. Garcia-Azorin D, Matias-Guiu JA, Cabrera-Martin MN, Fernandez-Matarrubia M, Moreno-Ramos T, Carreras JL,
Matias-Guiu J. Primary progressive aphasia with occipital impairment. J Neurol Sci 2014;347:387-388. In this article, two cases with progressive aphasia and occipital hypometabolism in PET are presented. In my opinion, the cases presented in the article, as well as the papers by Wicklund et al and Garcia-Azorin et al. confirms the same hypothesis: the existence of a subgroup of patients presenting with aphasia and posterior symptoms (apraxia, visuospatial impairment, etc.) in the setting of Alzheimer’s disease.

MINOR REVISION
-Figure 1 and 2 may be further improved by the addition of MRI imaging and SPECT raw images. This is also important to assess atrophy and hypoperfusion.
-Were amyloid biomarkers (amyloid PET or CSF) available?

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

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests: 
I declare that I have no competing interests.