Reviewer’s report

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

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Reviewer: ASLI DEMIRTAS-TATLIDEDE

Reviewer’s report:

This is an interesting article presenting two cases of progressive transcortical aphasia and ideational apraxia. While an interesting observation, the article raises several issues that need to be addressed:

Major compulsory revisions:

1. The reported observations comprising transcortical aphasia and apraxia (including ideational apraxia) have been frequently described in cases with posterior cortical atrophy (PCA) in combination with other visual disturbances. The authors describe affected areas as ‘slightly posterior and somewhat distant from perisylvian region’ in both patients. Indeed, the lesion shown in SPECT image looks quite posterior and is reportedly bilateral. It is quite interesting that the authors do not mention any visuospatial tests, processing of spatial location or tests for visual agnosia in their neuropsychological exam. How were these domains examined? One would wonder how they ruled out PCA in these cases. For example, regarding Case #2 it appears that components of Gerstmann syndrome (agraphia and acalculia, while they do not mention the presence/absence of the other components i.e. finger agnosia or right-left disorientation) and inability to read an analog clock (likely due to simultanagnosia) presented a year before the presence of ‘ideational apraxia’. This case could be a typical posterior cortical atrophy case in my opinion.

2. I understand that Standard Language Test of Aphasia (SLTA) is quite a comprehensive language test for Japanese population. However, probably not all the readers are familiar with it. I believe the report would benefit from a more detailed description of the language disorder reporting the speech rate, repetition (word, non-word, short and long sentences including the number of repeated words), auditory comprehension (sentence comprehension should distinguish between the ability to respond to yes-no questions (e.g. "Is your name Brown?") vs. comprehension of grammatical elements, such as the passive voice), reading and reading comprehension, writing (mentioned only in case #2).

3. In fact, the overall neuropsychological battery needs to be clarified. Apart from the SLTA, the only reported neuropsychological measure appears to be digit-span forward.

4. The resolutions of brain SPECT images appear too low. In my opinion, the
single images presented for each case do not provide sufficient information. I would suggest adding more SPECT images showing other parts of the brain, for example, including both hemispheres from both lateral and medial sides, and also providing a few images from the cranial MRI.

Minor essential revisions:

5. The usual presentation of cases should respectively include the patient history, neurological examination, neuropsychological examination and finally the neuroimaging findings followed by the follow-up of the case.

6. The patient histories could benefit from more details: For example, case #2, line 163- the sort of mistakes the patient made at work could be critical.

7. Line 255-256 ‘Atrophied areas in our cases included the parietal cortex, whereas areas with atrophy in Wicklund’s cases [10] did not include the parietal cortex.’

As far as I can see, Wicklund reports mild parietal involvement in both cases.

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Needs some language corrections before being published

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