Author's response to reviews

Title: Acute infarct of the corpus callosum presenting as alien hand syndrome: evidence of diffusion weighted imaging and magnetic resonance angiography

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Author's response to reviews:

Dear Mr Arnold Bongcayao,

Thank you very much for your letter dated 13-Sep-2011, and the comments from the two reviewers. Based on the reviewers' comments and requests, we have made extensive modification and removed some redundancies to make our manuscript (5910396545757023) more simple and concise. All corrections and supplementary materials are labeled in green for the Referee #1 and yellow for Referee #2 in our new manuscript. Our detailed point-by-point responses to the concerns are as follows.

Response to reviewers

Referee #1

Thank you very much for the comments from this reviewer. All corrections and supplementary materials are labeled in green for the Referee #1.

Comment 1 # Case description

Especially, the author should describe……

1.1 Educational history (or years) of the patient

[Reply] We have added this in our new manuscript (Page 3, line 20-21).

1.2 Presence or absence of amnesia, disorientation, callosal symptom (agraphia in left hand, ideomotor/ideational apraxia in left hand, tactile naming in left hand, alexia in left visual field, constructional apraxia and/or neglect in right hand).

[Reply] We have added this in our new manuscript (Page 4, line 1-5).

1.3 Results of standard neurological tests such as Wechsler adult intelligence scale (IIIrd?), Wechsler Memory Scale (revised?), or otherwise Mini-mental state (Folstein, 1974). These findings help locate the damaged cortex.

[Reply] The scale of the Mini-mental state examination (MMSE) was 24 when she was admitted to our hospital (Page 4, line 4-5). The other standard neurological tests such as Wechsler adult intelligence scale and Wechsler...
Memory Scale were not performed in our study. We do think this is a very good advice to add the clinical and behavioral assessments in future study.

1.4 Left hemiparesis, clumsiness, hemianesthesia and Babinski’s sign are not neuropsychological sign but neurological sign.
[Reply] We accept the reviewer’s criticism. This has been changed (Page 4, line 10-12).

1.5 "Activities of daily living (ADLs) were severely impaired." The author should describe the point where the patient becomes a problem in daily life in detail.
[Reply] We have added the details in our new manuscript (Page 4, line 12-14).

Comment 2 # Figure and table
Are not there any lesion in other slice of MRI? If so, please add them. Furthermore, add to figure if there is MRI of the sagittal slice which can be easily found lesion in corpus callosum.
[Reply] We accept this reviewer’s advice. We have added the Figure 2, which showed axial DWI with high signal intensity in all the slices of the lesions of the corpus callosum. We also added the sagittal T1-weighted MRI showing hypo-intensity in the genu, body and splenium of the corpus callosum (Fig. 1, e).

Comment 3 # Discussion
I think it wonderful that the point of alien hand is put in order on this paper. Please explain the mechanism caused by this lesion.
[Reply] Thanks for this reviewer’s positive appraisal. We have added the discussion of the underlying mechanism of AHS due to the corpus callosum infarction in details (Page 6, line 1-7).

Referee #2:
Thank you very much for the comments from this reviewer. All corrections and supplementary materials are labeled in yellow for the Referee #2.

Major point:
Comment 1
Because these symptoms are commonly known to be caused by impairment of corpus callosum, I wonder this case report give us additional clinical implication.
[Reply] We accept the reviewer’s criticism. The underlying clinical implication for our case has been further discussed in our new manuscript (Page 6, line 7-12).

Comment 2
In discussion section, authors should focus more on the point which thought to be rare in the patient. The authors mainly discuss on the definition and classification on alien hand syndrome in the literature.
[Reply] We accept the reviewer’s criticism. This has been further discussed in details in our new manuscript (Page 6, line 27-30 and Page 7, line 1-6).
Minor point:

#Please describe what treatments were given to the patient.
[Reply] This has been added (Page 4, line 26).

#It would be better to add more detailed information on the patient’s higher cerebral function: MMSE or frontal function tests, FAB etc.
[Reply] The scale of the Mini-mental state examination (MMSE) was 24 when she was admitted to our hospital (Page 4, line 4-5). The other frontal function tests such as FAB, WCST were not performed. We do think this is a very good advice to enrich the neuropsychological tests to assess the frontal function in future study.

#The last sentence at the last page: did authors perform functional MRI?
[Reply] That is a good suggestion. Regrettably, we did not perform the functional MRI, such as task-related and resting state fMRI. We do think it would be helpful to use advanced neuroimaging techniques to elucidate the mechanism of AHS in future study.

#Please check the horizontal to vertical ratio of the figures: they look compressed.
[Reply] Thanks for this advice. We have done this as asked.

#In the figure, please indicate which side is right or left?
[Reply] Thank for this advice. We have done this as asked.

#In the figure of MRA, please remove unrelated part at the left-bottom of the figure.
[Reply] We have done this as asked.

We have revised the manuscript in line with all the reviewers’ comments and we hope that the manuscript can be acceptable for publication at BMC Neurology. If you have any questions, please feel free to contact us.

Best regards,
Junliang Yuan