

Reviewer1

1. Core tip should not be a brief summary, it should emphasize the most important facts about the subject of the review, please revise.

Response 1: Thank you very much for giving us very specific comments to make this review comprehensive. We have added more details in the Summary section according to your comments (Summary-1st paragraph). In this review, we have compared the results using volume-based and surface-based measurements for different segmented methods, and we infer that surface-based morphometry shows more details and automatic segmentation would be more objective.

2. I could not find satisfactory information about the frontal lobe. I suggest some current literature, please see and cite, a. <https://www.nature.com/articles/s41467-022-28087-0> b. <https://www.frontiersin.org/articles/10.3389/fnagi.2022.806026/full>

Response 2: We have added more studies on cortical structures at the end of the Discussion section in the revised manuscript (Discussion-14th paragraph), which makes this review better. The studies on cortical structures reveal changes to the cortex and the correlation with symptoms, which may help further explain the pathophysiology of Parkinson's disease and the role of each cortex in human activity.

Reviewer2

Dear Authors, It has been a comprehensive review of the volume and shape changes of strategic brain structures that may be associated with Parkinson's disease and its symptoms. However, several different sources can be added to the discussion in that it includes different study results (for example, Volumetric analysis of the subthalamic and red nuclei based on magnetic resonance imaging in patients with Parkinson's disease. Int J Neurosci. 2014 Apr;124(4):291-5. doi :

10.3109/00207454.2013.843091). Also, some mention of studies with 7 tesla and discussing their difference or superiority, if any, with studies with lower tesla power (for example, Prefrontal and hippocampal atrophy using 7-tesla magnetic resonance imaging in patients with Parkinson's disease. Oh BH, Moon HC, Kim A, Kim HJ, Cheong CJ, Park YS. Acta Radiol Open. 2021 Feb 24;10(2):2058460120988097.). Best regards...

Response: Thank you very much for acknowledging our research and for your insightful comments. As suggested, we have added some studies using different magnetic field intensities at the end of the Discussion section in the revised manuscript (Discussion-15th paragraph), including 1.5T and 7T MRI. We appreciate your suggestions!

Editor: Please authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content. Before final acceptance, when revising the manuscript, the author must supplement and improve the highlights of the latest cutting-edge research results, thereby further improving the content of the manuscript.

Response: We have revised the manuscript according to your comments. In the revised manuscript, we have adjusted the table and added the recently published articles. The included articles and Fig.1 were also adjusted accordingly. Thank you very much for the important comments.

Dear Editor

We have revised the manuscript based on the suggestions of the two reviewing professors.

We have marked the modified and supplemented parts in red font. Also, according to the suggestions, we have revised the figure and table.

Many thanks to the editors and reviewing professors for their suggestions that have helped improve our manuscript.