Author's response to reviews

Title: Prevalence of Abnormal Findings on Brain Magnetic Resonance (MR) Examinations and the Usefulness of Brain Docking in Annual Medical Check-ups

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Author's response to reviews: see over
Reply to the reviewers:

Dr. Judy Illes:

(1) Title: As Dr. Illes recommended, we would like to change the title as below:

“Prevalence of Abnormal Findings on Brain Magnetic Resonance (MR) Examinations and the Usefulness of Brain Docking in Annual Medical Check-ups”

(2) The background in the abstract has also been changed as below:

“To determine the prevalence of abnormal findings on brain magnetic resonance (MR) examinations, in order to assess the usefulness of brain docking in adult participant.”

In the Background of the text, the last paragraph has also been changed:

“In the current study, we analyzed the results of screening brain MR examination in order to assess its usefulness.”

(3) The table 2 was reconstructed as Dr. Illes recommended. No additional statistical analysis was performed because the total N was only 15.

(4) No malignant tumors: The sentence has been rewritten as Dr. Illes recommended. Thank you.

Dr. Frederik Barkhof:

Thank you.

Dr. Brian E. Chapman:

(1) Interpretation of the MRA images: We evaluated only MIP images. This was added in the Materials and Methods.
“When the MRA images were interpreted, only the MIP images were evaluated, and the source images were not used.”

(2) A failure analyses: Misinterpretation of the MRA images were suspected to be simply due to low image quality. This has been also added in the Results.

“These false positive findings were suspected to be due to low image quality of the MRA images.”

The equipment used in this study was old and the study limitations were largely due to this old equipment. It is sure that this is a matter of controversy, and as Dr. Chapman claimed, it may be better to conduct failure analyses and to make comparisons to newer MR technologies. However, it is quite difficult to discuss these issues only from our current data. Further studies using newer MR equipments are encouraged, and we are now trying to evaluate MRA images in the brain docking in our hospital using new 1.5-T MR equipment.

We added some discussion as below:

“For a better understanding of the false positive aneurysms it is better to make comparisons to newer MR technologies, although it is quite difficult to discuss this issue only from our current data. Further studies using newer MR equipments are encouraged, and we are now trying to evaluate MRA images in the brain docking in our hospital using new 1.5-T MR equipment.”