Review of: "Resting State fMRI for Motor Cortex Mapping in Children with Epilepsy"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

Comments on 'Resting State fMRI for Motor Cortex Mapping in Children with Epilepsy'

It is empirically known that a brain task performance only arouses a few brain intrinsic subnetworks, rather than creates new subnetworks. For children with epilepsy, the spatial delineation of the task-evoked motor cortex mapping in brain may be failed due to disabled task performance or null outcome in a task fMRI study, the motor cortex mapping may be expediently available through a resting-state fMRI study. This paper provides experiments in support of this hypothesis. I carefully read this manuscript several times and capture the author's intention. However, this manuscript remains unclear with some missings of important technical details. My specific comments are as follows.

1. I notice that 'fMRIPrep' is used abstract, but 'fMRIprep' is used otherwhere in text.
2. I am confused with two sets of numbers: '64 patients, 12 controls' and '32 patients, 11 controls' in the whole manuscript.
3. I am confused with 'Dice' similarity' (a traditional similarity measure) with 'DICI' (a specific measure defined by you in Eq. (2)) through all the manuscript. A brief introduction on Dice should be included.
4. In abstract, the statement "The ICA maps may provide different, but useful, information than task fMRI" seems not to be your goal. To my understanding, you wish to get the task motor mapping from rsfMRI data when task fMRI data are not available.
5. In Introduction, '1mm isometric anatomical T1" should be "1mm isotropic …".
6. "60 participants" should be specific to "60 patients'.
7. "alternating 30s blocks … serving as control" should be "alternating 30s blocks … serving as task clue or task timecourse". Try to avoid abuse of "control", which may be confused with "control subject".
8. What is your intention to use "more than 1.3 minutes of motion"? You defined motion outliers by displacement 0.5mm, not by time.
9. For group average, it is necessary to covert all individual brains into standard brain space (MNI space) by standard normalization. In the reverse, it is necessary to find the subject-specific HMAT from the standard HMAT template by a subject-specific inverse spatial normalization. These operations are not cleared (not mentioned) in the manuscript.
10. The subsections "Clinical Validation" and "Statistical Analysis' are unclear. What the relationships among triple data? 'wIMM' (3D spatial maps), 'task motor' (3D spatial maps), and 'neuropsychological scores' (1D vectors) needs to be

defined.

‘The ICA maps may provide different, but useful, information than task fMRI’ is not a proper statement, because both task fMRI data rsfMRI data can be decomposed by ICA.

How to find the HMAT from subject’s native brain space?