

OPEN PEER REVIEW REPORT 1

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Title: Longitudinal quantitative eeg study in stroke patients

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COMMENTS TO AUTHORS

In current manuscript, the authors reported results from a longitudinal quantitative electroencephalography (EGG) study on ischemic stroke patients. By measurement of EEG signals, MRI evaluation, and clinical status assessment, the authors performed comprehensive correlation and comparative studies between EEG signals, EEG-derived Higuchi fractal dimension (HFD) and clinical status, effective recovery, lesion site, as well as disease time. Although the sample size used in this study is relatively small (stroke patient=24, control cohort=20), the authors have applied rigorous statistical analyses on their data. Thus the results in this reported study may still provide useful information in our knowledge of EEG application in ischemic stroke diagnosis and prognosis. However, some major issue and minor point have yet to be addressed before the authors sharing their findings with colleagues in the field.

Major point

As the authors stated, "the clinical outcome shows a huge inter-individual variability". One possible contributing factor for this variability is the different treatment and/or rehabilitation approaches among different patients. To validate that EEG is a reliable method for evaluating clinical performance and recovery status in sub-acute phase, one must take the therapeutic/rehabilitative approaches into consideration. Unfortunately, discussion relevant to this topic is completely missing in this manuscript.

Minor point

It would be more convincing that the authors add statistical data in the Abstract other than a plain description of their analysis results.