

FEELING FATIGUE IMPACTS BRAIN RHYTHMS IN POST COVID-19 PATIENTS

Wednesday, September 25, 2024 2:10 PM (20 minutes)

Background: Following contraction of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) infection, commonly known as Covid-19, and experiencing its symptoms for extended periods (a condition termed “long Covid”), many individuals subjectively report experiencing “brain fog” (e.g., cognitive, and psychiatric disorders, etc.). Among these symptoms, it has been observed that 20%-30% of long Covid patients assessed > 6 months after infection onset exhibit fatigue symptoms associated with poorer sleep quality, depressive symptoms, and subjective cognitive complaints.

The aim of this study was to investigate in further detail the specific alterations of brain rhythms in post-COVID subjects who did not exhibit cognitive and psychiatric disorders but primarily suffered from subjective fatigue.

Methods: Experiments were conducted on post-COVID participants approximately one year after hospitalization for Covid-19 infection. Inclusion criteria comprised a report of “brain fog,” absence of pre-existing cognitive and psychiatric conditions, and absence of current chronic organic disease. Matched healthy controls were also recruited. All participants underwent clinical/neuropsychological assessment (including fatigue assessment) and resting-state electroencephalography (rsEEG) recordings.

Results: More than 90% of all post-COVID participants showed no cognitive or psychiatric disorders, and 75% reported ≥ 2 fatigue symptoms. The post-COVID group exhibited overall lower posterior rsEEG alpha source activities compared to the Control group. This effect was more pronounced in long Covid-19 patients reporting ≥ 2 fatigue symptoms.

Conclusions: In post-COVID patients without cognitive and psychiatric disorders, “brain fog” may be associated with abnormal posterior rsEEG alpha rhythms and subjective fatigue.

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No

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No

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