

All patients underwent pre-treatment multichannel background EEG recordings in a state of quiet wakefulness with eyes closed and analysis of the absolute EEG spectral power (SP) in 8 narrow frequency sub-bands.

As well, markers of neuroplasticity — the levels of autoantibodies to the S100b protein (AAT-S100b) and to the myelin basic protein (AAT-MBP) were measured in each patient's blood plasma using the laboratory technology "Neuro-immuno-test".

The EEG and immunological parameters of the "COVID" group were compared with similar data of 40 depressive patients who were treated in 2018-2019, that is, they did not have COVID-19 ("pre-COVID" group), but matched by sex, age, syndrome structure, as well as the pre-treatment severity of depression (according to the HDRS-17 scale) to patients of the "COVID" group.

Statistical analysis of the data obtained was carried out by the correlation analysis method of the IBM SPSS Statistics, v.22 software package.

**Results:** In the "COVID" group, the AAT-S100b level values positively correlated with the EEG delta sub-band (2-4 Hz) SP values in T3, T4, P4, and O1 leads. The values of the AAT-MBP level correlated with the SP values of delta (2-4 Hz) and theta1 (4-6 Hz) EEG sub-bands in C3, T4, P3, P4, O1, and O2 leads. In the "pre-COVID" group, the values of the AAT-S100b level correlated positively with the SP values of not slow-wave, but alpha2 (9-11 Hz) and alpha3 (11-13 Hz) EEG activity in T3, P3, O1, and O2 leads.

**Conclusions:** Positive correlations of the AAT-S100b level with alpha2 and alpha3 SP values indicate that in the "before COVID" group, the AAT-S100b level reflects rather the reparative processes of neuroplasticity. On the contrary, in the "COVID" group, positive correlations of the AAT-S100b and of the demyelination marker AAT-MBP levels with the SP values of slow-wave (delta and theta1) EEG frequency components, reflecting a reduced brain functional state, indicate that elevated levels of AAT-S100b and AAT-MBP in this group are markers of nerve tissue damage caused by coronavirus infection.

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**Disclosure of Interest:** None Declared

## EPP0428

### EEG Correlates of suicidal intentions in depressive patients who survived and have not been ill with COVID-19

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**Introduction:** The COVID-19 pandemic has caused an increase in suicidal intentions and attempts. One of the ways to prevent suicides is the timely detection of suicidal intentions. In this regard, it seems relevant to search for objective markers of suicidal intentions.

**Objectives:** The aim of the study is to identify EEG correlates of suicidal intentions in depressive patients who survived and not have been ill with COVID-19.

**Methods:** The study included 30 female patients aged 16-25 years with depressive disorders (F31.3-4, F21.3-4 + F34.0, according to ICD-10), who had previously a mild or asymptomatic coronavirus

infection (group "COVID"), and 40 depressive patients, matched by sex, age, syndrome and the pre-treatment severity of depression (according to the total score of the Hamilton HDRS-17 scale), but not sick with COVID-19 ("non-COVID" group). The severity of suicidal intentions was quantified by the number of points of item 3 of the HDRS-17 scale. All patients underwent pre-treatment registration of the background EEG in a state of quiet wakefulness with eyes closed in 16 monopolar leads: F7, F3, F4, F8, T3, C3, Cz, C4, T4, T5, P3, Pz, P4, T6, O1 and O2. The analysis of the absolute EEG spectral power (SP) was carried out in 8 narrow frequency sub-bands. Statistical processing of the data obtained was carried out using the methods of descriptive statistics, comparison of means and correlation analysis of the IBM SPSS Statistics, v.22 software package.

**Results:** In the "COVID" group, the mean number of points of item 3 of the HDRS-17 scale was slightly higher than in the "non-COVID" group ( $2.1 \pm 1.5$  and  $1.8 \pm 1.6$ , respectively), but these differences did not reach the level of statistical significance ( $p > 0.05$ ). However, the structure of correlations between the values of this indicator of the severity of suicidal intentions and EEG parameters in the two groups turned out to be different. In the "COVID" group, the largest number of significantly ( $p < 0.05$ ) positive correlation coefficients was noted between the number of points of item 3 of the HDRS-17 scale and the SP values of slow-wave EEG components, e.g. theta2 sub-band (6-8 Hz) in leads F7, F3, F4, F8, T4, C3, C4, P3 and P4, as well as the delta sub-band (2-4 Hz) in leads F7 and P4. In the "non-COVID" group, the number of points of item 3 of the HDRS-17 scale positively correlated with the SP values of the alpha2 sub-band (9-11 Hz) in leads F7, F8, F4, C3, C4, T4, P4 and O2, as well as with SP values of the delta sub-band (2-4 Hz) in leads F7, F3 and C3.

**Conclusions:** In depressive patients who underwent COVID-19, the severity of suicidal intentions is associated with EEG signs of a more reduced functional state of the cerebral cortex, including the anterior regions, than in patients who did not have coronavirus infection.

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## EPP0430

### Self-Compassion and General Well-Being among Self-Quarantined Residents: Mediation by Certainty in Control and Moderation by Positive Coping

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**Introduction:** The outbreak of the Coronavirus Disease 2019 (COVID-19) has caused adverse outcomes on tens of millions of people worldwide, both physically and psychologically. As a public health response, quarantine has been recruited as a national measure in COVID-19, which subjects people who are suspected and confirmed cases to strictly isolation. Unfortunately, people may suffer from various adverse effects under self-quarantine at home. Thus, it is crucial to explore how to improve the psychological