among the early frontline personnel compared to others. The odds of no show at 24-month wave were 1.42-fold for those at the frontline (95% CI = 1.2–1.68). This effect was not fully explained by age, sex, profession or having experienced a potentially traumatic event at the baseline.
Conclusions: Early frontline employees who participated the 24 - month follow-up, did not report significantly more psychological distress than other employees. Subthreshold changes in insomnia scale are in line with a recent meta-analysis R3.
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O0122

Inflammatory signature of post-COVID-19 depression

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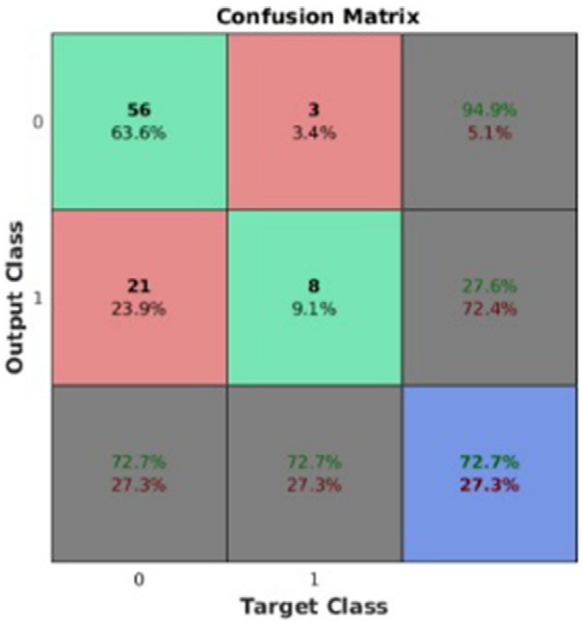
Introduction: Persisting and disabling depressive symptomatology represent a prominent feature of the post-acute COVID-19 syndrome. Sars-CoV-2-induced immune system dysregulation mainly result in a cytokine storm. Once in the brain, inflammatory mediators negatively affect neurotransmission, microglia activation, and oxidative stress, possibly disrupting critical brain neurocircuits which underpin depressive symptoms. So far, only inflammatory markers based on leukocyte counts have been linked to depressive outcome in COVID survivors. However, an accurate immune profile of post-COVID depression has yet to be elucidated.
Objectives: Identify inflammatory mediators that predict post-COVID depression among a panel of cytokines, chemokines, and growth factors, with a machine learning routine.
Methods: 88 COVID age- and sex-matched survivors' (age 52.01 ± 9.32) were screened for depressive symptomatology one month after the virus clearance through the Beck Depression Inventory (BDI-13), with 12.5% of the individuals scoring in the clinical range (BDI-13 ≥ 9). Immune assay was performed through Luminex system on blood sampling obtained in the same context. We entered 42 analytes into an elastic net penalized regression model predicting presence of clinical depression, applied within a 5-fold nested cross-validation machine learning routine running in MATLAB. Significance of predictors was evaluated according to variable inclusion probability (VIP), as returned by 5000 bootstraps. Socio-demographics, previous psychiatric history, hospitalization, time after discharge were used as covariates.
Results: The model reached a balance accuracy of 73% and AUC of 77%, correctly identifying 73% of people suffering from clinically relevant depressive symptoms (Figure1). Depressive symptomatology was predicted by high levels of CCL17, ICAM-1, MIF, whereas CXCL13, CXCL12, CXCL10, CXCL5, CXCL2, CCL23, CCL15, CCL8, GM-CSF showed a protective effect (Figure2).
Image:



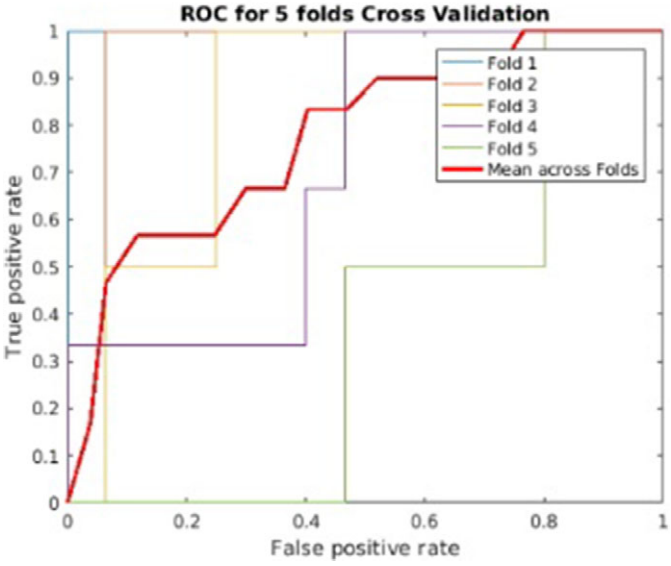


Image 2:

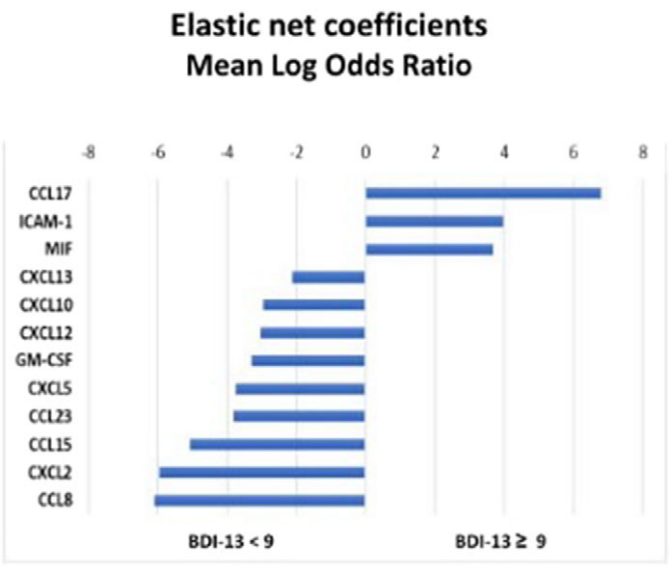


Figure 2. Immune analytes significantly associated to clinically relevant depressive symptomatology (VIP > 95%).
C-C motif ligand 17 (CCL17), CCL23, CCL15, CCL8
Intercellular Adhesion Molecule (ICAM-1)
Macrophage Migration Inhibitory Factor (MIF)
C-X-C motif chemokine 13 (CXCL13), CXCL10, CXCL12, CXCL5,CXCL2
Granulocyte-Macrophage colony -stimulating factor (GM-CSF)

Conclusions: This is the first study highlighting a putative inflammatory signature of post-COVID depression. Consistently to the immune profile of Major Depressive disorder, upregulation of innate immunity mediators seems to foster depressive symptoms in the aftermath of COVID. Interestingly, recruiters of B and T cells promoting a physiological adaptive response to viral infection also mitigate its psychiatric sequelae. Understanding the biological basis of post-COVID depression could pave the way for personalized treatments capable of reducing its add-on burden.

Disclosure of Interest: None Declared

O0123

Severe COVID-19 and breakthrough infections in vaccinated schizophrenia patients: A matched controlled cohort study

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Introduction: Schizophrenia patients are at an increased risk for severe SARS-CoV-2 illness. Recent studies indicate that vaccines reduce morbidity gaps between schizophrenia patients and the general population; nonetheless, the ongoing emergence of COVID-19 variants and the increased frequency of breakthrough infections might lead to changes in these risk profiles.
Objectives: In this study we aimed to bridge this gap by assessing the risk of COVID-19 infection, hospitalization, and mortality among vaccinated individuals with schizophrenia, as compared to vaccinated individuals with no schizophrenia, matched for age, sex, and vaccination coverage (first, second, and booster) throughout the first year of the vaccination plan.
Methods: The study included 50,958 vaccinated individuals: 25,479 individuals with schizophrenia and 25,479 without schizophrenia. Data were derived from the databases of Clalit Health Services, the largest healthcare organization in Israel.
Results: Findings indicated that differences among vaccinated schizophrenia patients and controls were non-significant after adjusting for infection (HR = 0.93, 95%CI 0.84-1.03, p = 0.14) and mortality rates (HR = 2.18, 95%CI 0.80-5.90, p = 0.12). Nonetheless, differences in rates of hospitalization remained significant even after controlling for demographic and clinical factors (HR = 2.68, 95%CI 1.75-4.08, p<0.001). A longitudinal assessment of relative risk indicated that the rate ratio of differences between the groups increased during the fourth infection wave of the B.1.617.2 (delta) variant across all parameters, with schizophrenia patients demonstrating higher relative risk of hospitalization (RR = 4.19, 95%CI 2.41-7.23) and mortality (RR = 7.61, 95%CI 0.93-61.89) during the relevant periods.
Conclusions: These findings suggest that vaccination coverage is effective in narrowing overall morbidity and mortality gaps; nonetheless, individuals with schizophrenia are still at risk for severe COVID-19 outcomes.

Disclosure of Interest: None Declared

O0124

The effect of COVID-19 pandemic on depression and suicidal ideation in Korean community dwelling elderly

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Introduction: The impacts of the coronavirus disease of 2019 (COVID-19) pandemic on mental health have been relatively severe.
Objectives: This study examined the influence of the COVID-19 especially on depression and suicidal ideation in community-dwelling elderly in Korea.
Methods: Data were employed from a survey on elderly mental health in Jeollanam-do (southwest province in Korea). A total of 2,423 elderlies were recruited from 22 counties in Jeollanam-do between April and October 2021. We used self-reported questionnaires, including sociodemographic factors, COVID-19 related stress, suicidal ideation, Geriatric Depression Scale-Short Form Korean Version (GDS-SF). Logistic regression was performed to examine the factors on depression and suicidal ideation
Results: Of the 2423 subjects, 622 (25.7%) reported depressive symptoms and 518 (21.4%) reported suicidal ideation. The multivariate logistic regression analysis revealed that living alone, poor perceived health status, the worry of COVID-19 infection and restriction of daily activity due to COVID-19 pandemic were significantly associated with depression. Male sex, poor perceived health status, disability in house chores and depressive symptom are risk factors for suicidal ideation.