

diagnosis and the development of a new treatment plan, rather than solely to adjustments in his antidepressant medication (sertraline, 100 mg). Although he tolerated the medication well, he emphasized that the sense of being understood significantly enhanced his motivation. Additionally, the patient reported vivid nightmares over the last two weeks but denied current suicidal thoughts.

Conclusions: This case highlights the complex relationship between prolonged diagnostic uncertainty and depressive symptoms in chronic inflammatory diseases like VEXAS syndrome. The findings suggest that a definitive diagnosis and clear treatment strategy are crucial for improving mental health and overall well-being. This underscores the importance of a multidisciplinary approach that prioritizes both physical and psychological needs, enhancing the quality of care for patients navigating such complex conditions.

Disclosure of Interest: None Declared

EPV1513

Probiotics decrease C-reactive protein level in depression depending on basal chronic low-grade inflammation status or antidepressant use – secondary results of the Pro-demet randomized clinical trial

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Introduction: There is a need to search for new treatment options not only for depression but also its concomitant diseases. Particularly, depression and metabolic-health abnormalities often coexist, while inflammation and microbiota imbalance, may play a part in their pathophysiological overlap. Thus, the trials of interventions on the microbiota may result in establishing a safe adjunctive treatment option.

Objectives: The primary aim of this secondary analysis was to assess the effect of probiotic formulation on inflammatory parameters in adult patients with depressive disorders. The secondary aim was to assess some possible pretreatment determinants of probiotics action towards inflammation, e.g., dietary habits, inflammatory or metabolic status, severity and dimensions of psychiatric symptoms, medications used.

Methods: The parent trial was a two-arm, 60-day, prospective, randomized, double-blind, controlled design. The probiotic formulation contained *Lactobacillus helveticus* Rosell®-52 and *Bifidobacterium longum* Rosell®-175. The change in inflammatory parameters (e.g., C-reactive protein, complete blood count-derived markers, tumor necrosis factor- α) after intervention alone and in the context of basal lifestyle, psychometric, metabolic, and inflammatory parameters was assessed.

Results: Probiotics significantly decreased CRP levels compared with placebo by 21.3 % ($p = .047$) with nearly moderate effect size as measured with Cliff's delta ($\Delta = .249$). Rates of CRP-responders (a minimum 50% decrease in CRP level) were non-significantly

higher in the probiotic than placebo group (18.0 % vs. 5.26 %, respectively; $\chi^2(1) = 3.20$, $p = .074$); but the effect size was shown to be clinically meaningful (OR = 3.95; NNT = 7.85). In two-way ANOVA with interaction analysis, probiotics anti-inflammatory action was shown to be favoured by antidepressant use, and higher basal alanine aminotransferase. But, pretreatment chronic low-grade inflammation status counteracted probiotics anti-inflammatory properties.

There were no significant differences in complete blood count-derived parameters, nor in TNF- α levels.

Conclusions: We have found an anti-inflammatory action of probiotics in patients with depression, as shown in the assessment of CRP levels. Additionally, probiotics were revealed to be more effective for inflammation measured by CRP levels when used by subjects with certain pretreatment features. Further studies should be performed to replicate these results.

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EPV1515

Measurements of Vitamin D and inflammation factors in a psychiatric outpatient clinic

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Introduction: Vitamin D is a fat-soluble vitamin that together with parathyroid hormone (PTH) regulates blood calcium and phosphorus levels. Vitamin D also has anti-inflammatory, antioxidant, and neurotrophic properties. It acts through the vitamin D receptor (VDR), which has been found throughout the body, including the nervous system. Its deficiency is associated with various diseases, including depression and schizophrenia. It is estimated that approximately 1 billion people worldwide have vitamin D deficiency, while 50% of people worldwide (4 billion people) are thought to have insufficient levels of vitamin D.

Objectives: The retrospective study aimed to determine whether routine laboratory tests in a psychiatric office/outpatient clinic can find a connection between vitamin D levels and inflammatory parameters such as CRP, leukocytes, and the neutrophil-to-lymphocyte ratio (NLR).

Methods: Data was collected from a psychiatric office/outpatient clinic between the years 2020 and 2023. We included the patients (and their basic data, such as gender, age, diagnosis during treatment) whose laboratory results had vitamin D levels as well as a complete blood count (leukocytes, neutrophils, and lymphocytes) and c-reactive protein (CRP). We calculated the ratio of neutrophils to lymphocytes (NLR) and performed Spearman's correlation, where a p-value of <0.05 indicated a statistically significant change.

Results: Between 2020 and 2023, 88 laboratory tests were conducted in the outpatient office, that included vitamin D levels, of these, 67 had all the necessary data. Vitamin D deficiency was present in 65% of patients. We found that CRP was not sensitive enough for our study, as 83% of CRP values were below 8 mg/L. After performing a correlation between vitamin D levels and leukocytes and NLR, we did not find a statistically significant connection.

Conclusions: We did not find statistically significant correlation between the level of vitamin D and NLR and leucocytes. We would recommend further research that uses a larger sample of patients and conduct measurements during acute illness or exacerbation to obtain more reliable conclusions.

Disclosure of Interest: None Declared

EPV1516

The possible role of seasonality and hs-CRP in the evaluation of suicidality risk

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Introduction: Suicidality is a critical concern in individuals with affective disorders, and environmental and biological factors may influence its risk. In recent years, seasonal variations and systemic inflammation, as indicated by high-sensitivity C-reactive protein (hsCRP), have garnered interest as potential contributors.

Objectives: To assess the risk of suicidality in affective disorders among seasonality correlated with hsCRP.

Methods: A naturalistic, observational, cross-sectional study was carried out by retrospectively recruiting 353 adult inpatients affected by severe mental illness (SMI) consecutively hospitalized in the Psychiatry Clinic of the Ospedali Riuniti of Ancona, Italy. Patients affected by inflammatory pathology, alcohol/substance use disorders or treated by anti-inflammatory/immunosuppressive therapy were excluded. Only patients suffering from mood disorders were considered for this analysis (n=246). We administered a checklist for socio-demographic and clinical features (diagnosis, age of onset, disease duration, number of episodes, number of episodes per year, suicidal attempts and comorbidities). Subscale 5 of the Mini International Neuropsychiatric Interview (MINI-5-s) was administered to all the patients involved to assess suicidality risk. To normalize hs-CRP, a logarithmic transformation was performed (log-hsCRP). At the same time, season were codified as dummy variables. T-test for independent groups and multivariate linear regression were conducted.

Results: 47.2% (n=116) of the sample were male. The mean value of hsCRP was 5.7mg/L (SD=15.8). The mean score of MINI-5-s total score was 13.3 (SD=11.6). Patients admitted to our psychiatric ward in meteorological (p=0.013) and astronomical (p=0.049) autumn had a lower log-hsCRP compared to other seasons. A multivariate linear regression was observed between MINI-5-s total score ($R^2 = 0.74$, $F=9.639$, Durbin-Watson=1.915, $p<0.001$) and hsCRP ($B=0.94$, $p=0.041$) and the meteorological autumn ($B=-7.436$; $p<0.001$).

Conclusions: This study highlights a significant association between seasonality, systemic inflammation (as measured by hsCRP), and suicidality risk in patients with mood disorders. Our results focus on the importance of considering biological and environmental factors in assessing and managing suicidality risk in affective disorders. Further studies are essential to link seasonal and inflammatory mechanisms.

Disclosure of Interest: None Declared

EPV1517

Correction of hematopoiesis in alcoholism by the lymphocytes, modulated with a synthetic GABAA-R ligand

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Introduction: It is well known that alcohol has a variety of pathologic effects on hematopoiesis. Long term alcohol abuse result in a significant suppression of both the production of blood cells and structural changes in precursors, namely the suppression of their maturation, up to pancytopenia. We first demonstrated the immunomodulatory properties of a synthetic GABAA-R ligand, meta-chlorobenzhydrylurea (m-CBU). We also showed that splenic lymphocytes modulated *in vitro* by m-CBU after intravenous administration to syngeneic long-term alcoholized recipients have a positive effect, manifested in the editing of behavior characteristic of alcoholism against the background of stimulation neuroplasticity and reduction of neuroinflammation.

Objectives: The purpose of this work was to study bone marrow hematopoiesis and peripheral blood parameters in long-term alcoholized recipients after transplantation of syngeneic lymphocytes modulated *in vitro* by m-CBU.

Methods: Male (CBAXC57Bl/6)F1 mice with 6-month 10% ethanol exposure were undergoing the transplantation of syngeneic long-term alcoholized mice lymphocytes, pretreated *in vitro* with m-CBU. The number of bone marrow hematopoietic progenitors and cellular composition of the blood were assessed in the recipients.

Results: Long-term alcoholization in mice led to a decrease in the colony-forming activity of hematopoietic precursors, mainly erythroid; in the peripheral blood of mice, a significant decrease in the number of erythrocytes, leukocytes, lymphocytes and platelets was recorded, while the population of segmented neutrophils significantly increased. Lymphocytes, precultured with m-CBU, in syngeneic long-term alcoholized recipients had a corrective effect on a number of hematopoietic parameters (colony-forming activity of erythroid precursors in the bone marrow, the number of erythrocytes, segmented neutrophils and lymphocytes in the peripheral blood) to indicators comparable to those in intact mice of the corresponding with tendency to increase the number of platelets in the peripheral blood.

Conclusions: The data obtained may indicate the effectiveness of m-CBU -modulated lymphocytes transplantation in correcting a number of changes in hematopoiesis provoked by long-term alcohol abuse.

Disclosure of Interest: None Declared