

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.

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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.

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