

seems to act on multiple receptor systems (Brunello et al NPP 1995; 13 177-213). The need to modulate non-monoaminergic targets is supported by findings of excessive glutamatergic activity, rather than increased dopamine synthesis, in patients with TRS (Demjaha et al BioPsy 2014; 75 11-3). Evenamide, devoid of biological activity at >150 CNS targets, is able to normalize excessive glutamate release without affecting basal levels. Evenamide has demonstrated benefits in several animal models of psychosis (monotherapy and add-on to AP). Benefit of evenamide as add-on was demonstrated in a phase 2, open-label trial (Anand et al IJNPP 2023; 174 216-229) and in a phase 2/3 randomized, double-blind study in patients not responding adequately to SGAs.

Objectives: Evaluate the efficacy, safety, and tolerability of evenamide 30 mg bid as add-on treatment in patients with documented TRS receiving AP treatment but not adequately benefitting from a stable therapeutic dose.

Methods: This is a prospective, potentially pivotal, phase 3, randomized, double-blind, placebo-controlled, 1-year international study, with a primary efficacy endpoint at 12 weeks and long-term efficacy endpoints at 26 and 52 weeks. Eligible patients must have a diagnosis of TRS according to the TRRIP consensus guidelines (Howes et al AmJPsy 2017; 174 216-229). During the 6-week screening period and throughout the study, adherence to background AP(s) and evenamide will be confirmed through measurements of plasma levels. Selection criteria include CGI-S of mildly to severely ill (3-6); BPRS total score ≥ 45 , with a score ≥ 18 on core symptoms of psychosis, and PANSS total score ≥ 70 . An Independent Eligibility Committee will determine patients' eligibility. Patients improving $\geq 20\%$ on the BPRS or ≥ 1 category on the CGI-S during the screening period will be excluded. Efficacy (PANSS, CGI-S/C, Q-LES-Q-SF, PSP scales) and safety (vital signs, ECG, lab tests, physical/neurological/eye exams, ESRS-A, CDSS, C-SSRS) will be evaluated at regular intervals.

Results: Results from this study will determine whether addition of evenamide 30 mg bid to APs is associated with clinically important benefit in TRS patients.

Conclusions: Positive results would support the role of glutamate modulators for the optimal treatment of TRS.

Disclosure of Interest: R. Anand Consultant of: AbbVie, Acadia, BiolineRx, Domain, Enkam, Erydel, Forest, Janssen, Hoffman La Roche, Lundbeck, Noema, Ono, Pfizer, UCB, Shire, Sigma-Tau, Takeda, Teva, A. Turolla Employee of: Newron Pharmaceuticals SpA, G. Chinellato Employee of: Newron Pharmaceuticals SpA, R. Giuliani Employee of: Newron Pharmaceuticals SpA, F. Sansi Employee of: Newron Pharmaceuticals SpA, R. Hartman Employee of: Newron Pharmaceuticals SpA

EPP612

Myocardial deformation and pro-arrhythmic indices in a group of first-episode patients with psychosis after one year of antipsychotic treatment

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Introduction: Heart Rate Variability assesses the autonomic system function. We have previously reported increased sympathetic

activation (i.e. increased proarrhythmic risk) and asymptomatic left ventricular myocardial dysfunction in a group of drug-naïve, First Episode Patients with psychosis. We performed the same cardiological evaluation in a subgroup of these patients one year after the initiation of antipsychotic treatment.

Objectives: To find out the impact of antipsychotic medications in cardiac function.

Methods: Thirty three consecutive patients diagnosed with first psychotic episode were included in the current analysis. None of the patients had a previous history of cardiovascular diseases. All patients were assessed by 24-hour Holter ECG monitoring (including QT analysis and heart rate variability indices) and a thorough echocardiographic study (including myocardial strain analysis – global longitudinal strain GLS) at baseline (shortly after stabilization) and 1 year after treatment.

Results: The mean age of our population was 29 ± 7 years, 75% were males and their body surface area was $1.87 \pm 0.21 \text{ m}^2$. At baseline 1) the mean value of QTc was normal in all subjects although the greatest QTc value measured was above 500msec in 35% of patients, 2) SDNNI < 50 msec was observed in 50% of the patients, all patients had an abnormal HRV index, low RMSSD < 20 msec was observed in 35% of patients, no patient had abnormally low PNN50 values. No patient had evidence of overt structural heart disease and the value of left ventricular ejection fraction was within normal range ($57.5 \pm 5.1 \%$). GLS was decreased (i.e. < -16%) in 25% of patients. At follow-up maximum QTc value (517 ± 52 vs 485 ± 69 , $p=0.014$) and PNN50 (14.1 ± 12.1 vs 9.8 ± 10.5 , $p=0.05$) were increased while left atrial volume index (20.1 ± 6.3 vs 23.3 ± 6.4 , $p=0.031$) and GLS (-18.6 ± 2.5 vs -17.5 ± 2.5 , $p=0.007$) were decreased compared to baseline. No other significant changes were observed at follow-up. At follow-up, abnormal GLS, QTc max, SDNNI, HRV index, RMSSD and PNN50 values were observed in 16%, 60%, 38%, 96%, 15% and 0% respectively of included patients.

Normal values

SDNNI > 100 (especially < 50)

HRV INDEX > 60

RMSSD 13-48 MS

Pnn50 -3 – 43%

Conclusions: In patients with a first psychotic episode without a previous history of cardiovascular disease or risk factors, a significant proportion showed abnormal autonomous system function and subclinical myocardial dysfunction of the left ventricle. After 1 year of treatment, improvement was observed in left ventricular function and parasympathetic system activity with a concomitant increase QTc interval. Optimal management of psychotic episodes may lead to an amelioration of the risk of future myocardial impairment without affecting the risk for arrhythmias and sudden death.

Disclosure of Interest: None Declared

EPP614

Examination of Hematological Parameters in Patients with First-Episode Psychosis within the Bipolar Disorder or Schizophrenia Spectrum

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Introduction: First-episode psychosis (FEP) provides a crucial opportunity to investigate these biological markers before the influence of long-term treatment or disease progression. Both bipolar disorders with psychotic features and schizophrenia spectrum disorders are linked to systemic inflammation, and examining blood cell counts and inflammatory ratios may provide insights into the biological foundations of these conditions.

Objectives: This study aims to compare key hematological parameters and inflammation markers (neutrophil/lymphocyte ratio (NLR), platelet/lymphocyte ratio (PLR), monocyte/lymphocyte ratio (MLR)) between untreated first-episode psychosis patients diagnosed with psychotic mania, schizophrenia spectrum disorders, and healthy controls, examining potential differences between these groups.

Methods: 55 patients (F:28, M:27) diagnosed with schizophrenia spectrum disorder, 68 patients (F:38, M:30) diagnosed with bipolar disorder, all without a history of treatment, who were admitted to psychiatric clinics due to a first-episode psychosis, and 61 healthy volunteer individuals (F:24, M:37) matched for age and gender were included in the study. Hemogram data were obtained from medical records, and the hemograms taken within the first 48 hours of the patients' admissions were used in the study.

Results: The white blood cell, neutrophil, and monocyte counts were significantly higher in both patient groups than healthy individuals. The eosinophil count varied between the groups, with patients diagnosed with schizophrenia spectrum disorder having significantly lower counts compared to healthy individuals ($p=0.003$). When the analysis was conducted by gender, white blood cell, neutrophil, and monocyte counts were found to differ in women from both patient groups compared to healthy individuals, while in men, only the eosinophil count was lower in patients diagnosed with schizophrenia spectrum disorder ($p=0.023$). There were no significant differences in the NLR and PLR between the groups. The MLR value showed no difference between male patients and healthy individuals, but it varied between the groups in women, with patients diagnosed with psychotic mania having higher MLR compared to the other groups ($p=0.01$).

Conclusions: Changes observed in specific hematological parameters in both bipolar disorder and schizophrenia spectrum patients may contribute to understanding the pathophysiology of these disorders. However, given the heterogeneity in the presentation and etiology of these conditions, larger-scale and prospective studies are needed to determine the roles of these parameters in their pathophysiology. It may also be necessary to consider gender-based differences when assessing the potential roles of these hemogram parameters in the pathophysiology of the diseases.

Disclosure of Interest: None Declared

Addictive Disorders

EPP615

The Laughing Gas Trap: Subacute Spinal Degeneration with Normal B12 levels and Co-Morbid Functional Gait Disorder

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Introduction: Subacute combined degeneration (SCD) of the spinal cord is a well-known neurological disorder commonly associated with vitamin B12 deficiency. However, the condition can also present in individuals with normal B12 levels, making diagnosis more difficult.

Objectives: This paper aims to examine the diagnostic challenges posed by subacute combined degeneration of the spinal cord in patients with normal B12 levels. Specifically, it aims to highlight the importance of early screening for nitrous oxide use and the complexities introduced by co-occurring functional gait disorders.

Methods: Literature research was conducted using PubMed databases. The following keywords were used "whippets" or "nitrous oxide" or "inhalant use disorder", and "subacute degeneration of spinal cord" and/ or "normal B12 levels". Furthermore, a comprehensive clinical evaluation was conducted, including a detailed inquiry into the patient's substance use history.

Results: The 56-year-old patient developed symptoms of subacute combined degeneration (SCD) despite normal B12 levels. He experienced worsening tingling sensations, starting in the extremities and moving upward, along with new gait instability requiring a cane. Initially denying substance use, he later admitted to daily nitrous oxide inhalation, which disrupts B12 metabolism and causes spinal demyelination, leading to neurological deficits even with normal B12 levels. The presence of a functional gait disorder complicated the diagnosis, but persistent questioning about substance use and recognizing the effects of nitrous oxide were key to accurate diagnosis.

Conclusions: This case highlights the importance of early and comprehensive substance use screening, particularly in patients presenting with unexplained neurological symptoms. The disruption of B12 metabolism by nitrous oxide can cause significant spinal cord degeneration, even when serum B12 levels are normal. This underscores the need for detailed, persistent questioning about substance use in clinical settings, particularly for patients with risk factors for inhalant abuse. Additionally, an awareness of the multifaceted nature of functional gait disorders is essential for accurate diagnosis and optimal patient outcomes. Routine screening for nitrous oxide use and a thorough examination of gait abnormalities can aid in the timely detection and treatment of subacute spinal degeneration, preventing further neurological damage. By incorporating recommended screening questions and being vigilant about the neurological effects of nitrous oxide, clinicians can better address the diagnostic challenges of SCD and functional gait disorders.

Disclosure of Interest: None Declared

EPP617

Nomophobia and other psychological symptoms among nursing students community

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Introduction: Nomophobia among university students is recognized as an addictive issue, as their attention is often difficult to divert from smartphones, especially during class. This issue is increasingly evident among nursing students, who frequently check