Conclusions: Patients with LPR showed significantly higher levels of psychological distress, particularly anxiety and perceived stress, compared with healthy controls. These findings suggest that psychological factors may play an important role in the management of LPR and should be taken into account in diagnostic and therapeutic pathways.

Disclosure of Interest: None Declared

EPP441

Associations Between Autistic Traits, Catastrophizing, Sensory Sensitivity, and Panic Attack Severity in Patients With Panic Disorder

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Introduction: Panic disorder is characterized by recurrent panic attacks and heightened physiological arousal. Recent research has emphasized the associations between autistic traits and anxiety disorders, with evidence that individuals with panic disorder exhibit higher levels of autistic traits compared to healthy controls. However, the mechanisms linking autistic traits to panic severity remain insufficiently understood.
Objectives: This study aimed to investigate the relationships between autistic traits, sensory sensitivity, catastrophizing, and panic severity in patients with panic disorder, and to test the potential mediating roles of sensory sensitivity and catastrophizing.
Methods: A total of 103 patients diagnosed with panic disorder participated in the study. Participants completed the Autism-Spectrum Quotient (AQ), the Sensory Sensitivity Scale, a catastrophizing subscale, and the Panic Disorder Severity Scale (PDSS). Data were analyzed using SPSS 21.0 and PROCESS macro (Model 6) with 5,000 bootstrap resamples. Correlation analyses and serial mediation models were tested.
Results: Patients with higher autistic traits reported significantly greater panic severity,and catastrophizing tendencies. Additionally, participants with high autistic traits showed increased sensory sensitivity across all sensory modalities. Panic severity was positively correlated with both autistic traits (r= 0.236, p= 0.017) and sensory sensitivity (r= 0.384, p<0.001). Serial mediation analysis revealed that the total effect of autistic traits on panic severity was significant (b = 0.41, p = 0.02). Importantly, the serial pathway AQ → sensory sensitivity → catastrophizing → panic severity was significant (b = 0.09, 95% CI [0.02, 0.19]).
Conclusions: The findings indicate that the relationship between autistic traits and panic severity operates indirectly through increased sensory sensitivity and maladaptive cognitive appraisals. Sensory sensitivity appears to heighten catastrophizing tendencies, which in turn elevate panic severity. These results highlight the importance of considering autistic traits and sensory processing vulnerabilities in the assessment and treatment of panic disorder.

Disclosure of Interest: None Declared

EPP442

Psychological Predictors of Symptom Severity in Disorders of Gut–Brain Interaction: A Machine Learning Approach

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Introduction: Disorders of gut–brain interaction (DGBI), including irritable bowel syndrome (IBS), functional dyspepsia (FD), and functional constipation (FC), are prevalent conditions associated with psychological comorbidities. While psychosocial correlates of symptom burden have been widely reported, machine learning approaches to phenotype severity and predict risk based on psychological profiles remain limited.
Objectives: This study aimed (1) to identify severity-based clinical phenotypes of DGBI patients using unsupervised clustering of gastrointestinal symptom indices, and (2) to evaluate the predictive value of psychological variables in differentiating severity groups using machine learning.
Methods: A total of 373 patients diagnosed with DGBI at a Brain-gut axis Clinic, Department of Psychiatry, Wonkwang university hospital from 2020 to 2023 completed validated gastrointestinal severity scales (IBS-SSS, NDI-K, PAC-SYM, GERD-Q) and psychological assessments (BDI, BAI, CTQ, MSPSS, CD-RISC, DS-14). K-means clustering (k=3) was applied to GI severity measures to define mild, moderate, and severe groups. Group comparisons of psychological measures were conducted using ANOVA/Welch's ANOVA with Benjamini–Hochberg correction. Random Forest classifiers with nested 5-fold cross-validation and SMOTE oversampling were used to predict severity clusters. Feature importance was assessed by permutation analysis.
Results: Clustering classified patients into mild (n=159), moderate (n=132), and severe (n=82) groups. Significant between-group differences were observed in CTQ subscales (physical, sexual, emotional abuse; all FDR-corrected $p < 0.01$) and BAI muscular/motoric symptoms ($p = 0.0066$). Machine learning models based on CTQ or BAI alone showed modest performance (accuracy ~52–57%). Combining CTQ+BAI improved accuracy to 60.6% (F1=58.4%). The model incorporating all psychological variables achieved the best performance (accuracy 65.4%, F1=64.1%). Permutation importance highlighted sexual and emotional abuse as top predictors.
Conclusions: Our findings indicate that early adverse experiences and anxiety-related symptoms strongly differentiate severity phenotypes in DGBI. Machine learning models integrating multiple psychological dimensions outperform single-scale approaches, supporting precision psychosomatic profiling for DGBI management.

Disclosure of Interest: None Declared

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