Comparing PH and DysG groups, dysgraphia is associated to PSR (P = 0.04). 38% of abnormal MRI scans were heterogeneous and non-specific to the level of handwriting disorder and to PSR.
Conclusions: Dysgraphia appears to be a singular disorder as a comorbidity of DCD, which is significantly associated with a high incidence of motor impairments, suggesting a disturbance of the motor pathway (mild distal spasticity of the pyramidal corticospinal tract dysfunction). The presence of MND such as PSR highlights a mild impairment of the motor voluntary movement from the premotor cortex. PH appears primarily due to an immaturity of handwriting gesture consecutive to disorders of coordination programming in DCD.
Dysgraphia should be assessed not only with a simple handwriting test (legibility and speed) but completed with a developmental standardized physical neuropsychomotor examination assessing the presence of MND because to know the nature of the disorder is useful in clinical decision-making processes for handwriting remediation.

Disclosure of Interest: None Declared

EPV0454

Utilizing Artificial Intelligence to Predict Psychiatric Disorders in Patients with Inflammatory Bowel Disease (IBD): Insights Based on a Systematic Review

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doi: 10.1192/j.eurpsy.2025.1218

Introduction: The scientific literature recognizes the Gut-brain axis (GBA) as a crucial connection between gastrointestinal health and mental well-being. Patients with inflammatory bowel disease (IBD) are at a disproportionately higher risk of developing psychiatric disorders due to factors including gut dysbiosis and chronic inflammatory changes. Recent developments in artificial intelligence (AI) and machine learning, provide novel opportunities to predict the comorbid psychiatric outcomes in patients with IBD by analyzing complex datasets including but not limited to the gut microbiome and neuroimaging data.
Objectives: This systematic review discusses the current evidence for AI-driven models to aid in the prediction of psychiatric disorders in IBD patients, with a focus on their performance and potential challenges around their clinical implementation.
Methods: A systematic search on PubMed, EMBASE, Scopus, and Cochrane databases, identified 28 studies utilizing AI-based models to examine gut microbiota and neuroimaging data in patients with IBD. Data extraction illuminated the following artifacts: classification thresholds (i.e. predictive), relevant supervised learning or deep learning modeling (e.g. random forest classifiers, convolutional neural networks, and unsupervised models like attention-based learning), sensitivity, specificity, accuracy, and both accuracy measures and AUC-ROC curve values.
Results: A pooled analysis of the included studies demonstrated an estimated sensitivity of 81% (95% CI: 77-85%) and specificity of 78% (95% CI: 73-82%) to predict psychiatric disorders in patients with IBD with the highest predictive accuracy elicited by studies based on microbiome and neuroimaging data. Yun et al. (2024), for instance, demonstrated a predictive accuracy of 86% using microbiome profiles and structural brain imaging data while Fil et al. (2024) elucidated the positive correlation between gut dysbiosis and psychiatric symptoms based on microbial signature models. Additionally, the variability noted in the predictive performance of the models was found to be based on the patient population, quality of data, and machine learning strategy.
Conclusions: AI models present promising evidence in predicting psychiatric disorders in IBD patients by leveraging microbiome and neuroimaging datasets. Overall, the meta-analysis reports strong predictive strength with high sensitivity and specificity. Future work in this field should focus on the validation of these prediction models in various clinical populations, improving their generalizability and standardization to enable widespread use and integration in the field of personalized psychiatry, especially in patients with IBD.

Disclosure of Interest: None Declared

Consultation Liaison Psychiatry and Psychosomatics

EPV0455

Psychiatric Conditions Following Surgical Interventions: A Case Series

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doi: 10.1192/j.eurpsy.2025.1219

Introduction: The surgical treatment process involves not only physical recovery but also the management of psychiatric and psychosocial issues. Psychiatric disorders can negatively affect postoperative recovery, complicate adherence to treatment and decrease the quality of life (Begum *et al.* World J Surg 2022; 46(6) 1408-1419).
Objectives: This case series highlights less commonly encountered psychiatric conditions that arise after surgery and emphasizes the importance of considering how these conditions interact with pre-existing diseases during postoperative follow-up.
Methods: This case series examines three distinct cases of psychiatric disorders following surgical interventions:
Delusional disorder after hypophysectomy
Somatization disorder after cystoscopy
Psychotic depression following colostomy creation
Informed consent was obtained from all patients.
Results: Case 1
A 62-year-old male patient diagnosed with hypophyseal macroadenoma underwent transsphenoidal hypophysectomy. Two months after surgery, he developed paranoid delusions, believing his wife was having an affair. Initially treated with aripiprazole 15 mg/day, the patient did not improve. His treatment was switched to risperidone 2 mg/day, resulting in resolution of his symptoms.