



# ICOM 2026

## INTERNATIONAL CONGRESS ON MOOD DISORDERS

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ABSTRACT BOOK



# ORAL PRESENTATIONS

Ref No: 2798

## Comparison of the Claudin-5 levels and Peripheral Inflammatory Markers before and after the treatment of manic episode in patients with Bipolar Disorder-1

Ali Baran Tanrikulu<sup>1</sup>, Mehmet Hamdi Örum<sup>2</sup>, Hilal Kaya<sup>2</sup>, Zekiye Çatak<sup>3</sup>, Vesile Şentürk Cankorur<sup>5</sup>, İbrahim Emre Bora<sup>4</sup>

<sup>1</sup>Kocaeli City Hospital

<sup>2</sup>Elazığ Mental Health and Diseases Hospital

<sup>3</sup>Elazığ City Hospital

<sup>4</sup>Dokuz Eylül University

<sup>5</sup>Ankara University

**Background:** Increasing evidence suggests that inflammation and blood–brain barrier (BBB) dysfunction contribute to the pathophysiology of bipolar disorder (BD). Tight junction proteins such as claudin-5 play a crucial role in maintaining BBB integrity, and their peripheral levels may serve as potential biomarkers of BBB disruption. While inflammatory markers have been widely studied in BD, longitudinal investigations evaluating both peripheral inflammatory indices and BBB integrity markers across different mood states remain limited. This study aimed to investigate changes in peripheral inflammatory biomarkers and serum claudin-5 levels in patients with bipolar disorder type I (BD-I) during acute mania and after clinical remission following treatment.

**Methods:** Thirty-one patients diagnosed with BD-I who were hospitalized for a manic episode and 26 healthy controls were included. Psychiatric diagnoses were confirmed using the Structured Clinical Interview for DSM-5 (SCID-5). Clinical severity was assessed using the Young Mania Rating Scale (YMRS) and the Hamilton Depression Rating Scale (HDRS). Blood samples were obtained at two time points from BD patients: on the first day of hospitalization (pre-treatment) and after two weeks of clinical remission with a stable treatment regimen (post-treatment). Serum claudin-5 levels were measured using ELISA, while inflammatory markers including C-reactive protein (CRP), neutrophil-to-lymphocyte ratio (NLR), platelet-to-lymphocyte ratio (PLR), and monocyte-to-lymphocyte ratio (MLR) were calculated from laboratory tests. Group differences were initially evaluated using the Kruskal–Wallis test. When significant differences were detected, pairwise comparisons were performed using the Mann–Whitney U test. Within-group pre–post treatment comparisons were analyzed using the Wilcoxon signed-rank test.

**Results:** NLR, PLR, and MLR levels were significantly higher in both pre-treatment and post-treatment BD-I patients compared with healthy controls, indicating persistent inflammatory activation. CRP levels showed a different pattern: pre-treatment CRP levels were significantly higher than those of healthy controls, whereas post-treatment levels were not significantly different from controls after Bonferroni correction. Post-hoc analyses indicated that claudin-5 levels were significantly lower in pre-treatment patients compared with both post-treatment patients and healthy controls. Following treatment, claudin-5 levels increased and approached control levels.

Table 1 Sociodemographic characteristics of the groups

|                        | BD-I group<br>(n=31) | Healthy<br>Controls<br>(n=26) | p     |  |  |
|------------------------|----------------------|-------------------------------|-------|--|--|
| Gender<br>(Male, n, %) | 17 (54.8%)           | 13 (%50)                      | 0.793 |  |  |
| Age (years)            | 38.3 ± 10.8          | 39.3 ± 10.5                   | 0.731 |  |  |
| Education<br>(years)   | 8.4 ± 3.9            | 10.5 ± 3                      | 0.03  |  |  |

Table 2 Inflammatory Markers and Claudin-5 Levels of the groups

| Table 1 Inflammatory Markers and Claudin-5 Levels of the groups |                                         |                                          |                               |          |
|-----------------------------------------------------------------|-----------------------------------------|------------------------------------------|-------------------------------|----------|
|                                                                 | BD-I group ,<br>pre-<br>treatment(n=31) | BD-I group ,<br>post-<br>treatment(n=31) | Healthy<br>Controls<br>(n=26) | p        |
| NLR                                                             | 4.1 ± 2.1                               | 3.5 ± 1.8                                | 2 ± 0.63                      | <0.001** |
| PLR                                                             | 179.2 ± 55.5                            | 170 ± 66.3                               | 122.6 ± 39.4                  | 0.001**  |
| MLR                                                             | 0.5 ± 0.23                              | 0.5 ± 0.23                               | 0.26 ± 0.07                   | <0.001** |
| CRP                                                             | 5.2 ± 3.4                               | 4 ± 3.1                                  | 2.2 ± 1,5                     | 0.003*** |
| Claudin-5                                                       | 10.7 ± 8.7                              | 14.6 ± 9.8                               | 15.3 ± 9.1                    | 0.026*   |
| YMRS                                                            | 50 ± 7.9                                | 4.3 ± 1.9                                |                               | <0.001   |
| HDRS                                                            | 1.5 ± 1.2                               | 3.5 ± 2.3                                |                               | <0.001   |
| *PostT, C> PreT ; ** PostT, PreT> C ; *** PreT > C              |                                         |                                          |                               |          |

**Discussion:** Our findings suggest that acute manic episodes in BD-I are associated with increased peripheral inflammation and reduced serum claudin-5 levels, potentially reflecting BBB dysfunction. Treatment of mania appears to partially normalize claudin-5 levels while inflammatory indices remain elevated, indicating persistent immune dysregulation. These results support the hypothesis that BBB integrity and inflammation may play important roles in the biological mechanisms underlying bipolar disorder.

Ref No: 3502

### Comparison of PRDX1 and TrxR1 Levels Among Patients with Bipolar Disorder, Healthy First-Degree Relatives, and Healthy Controls

Onur Gökçen<sup>1</sup>, Kader Semra KARATAŞ<sup>1</sup>, Merve AKKUŞ<sup>1</sup>, Feyza DÖNMEZ<sup>1</sup>, Ayşe Koçak Sezgin<sup>1</sup>, Meliha Koldemir Gündüz<sup>1</sup>

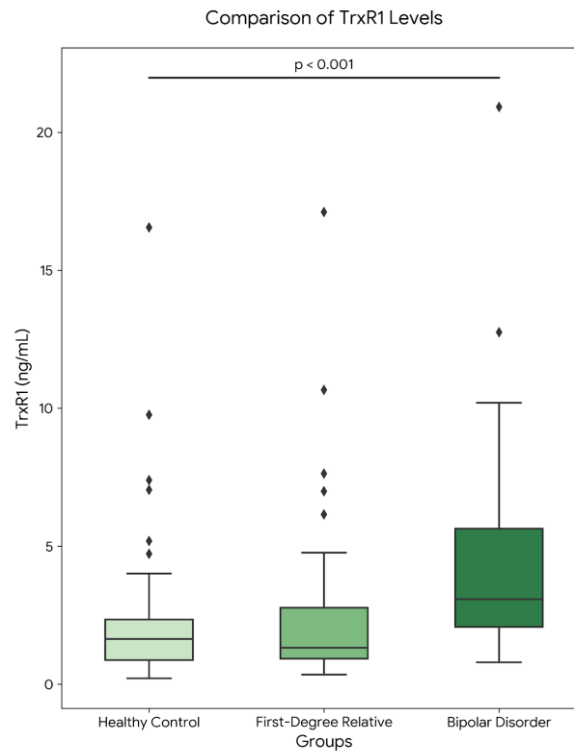
<sup>1</sup>Kütahya Health Sciences University

**Background:** Oxidative stress and redox imbalance have increasingly been implicated in the pathophysiology of bipolar disorder (BD). Peroxiredoxin-1 (PRDX1) and Thioredoxin Reductase-1 (TrxR1), key components of the thiol-based antioxidant system, play critical roles in the regulation of cellular redox homeostasis. This study aimed to compare PRDX1 and TrxR1 levels among euthymic BD patients, their healthy first-degree relatives, and healthy controls in order to evaluate their potential as biomarkers.

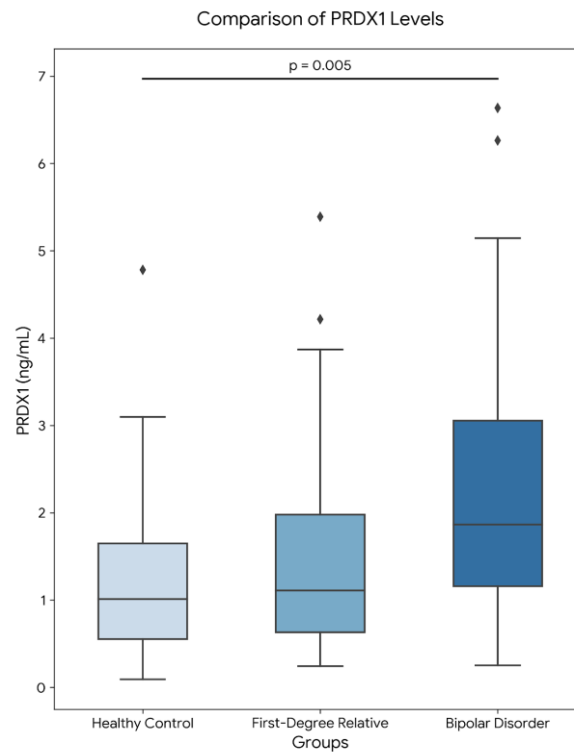
**Methods:** A total of 120 participants were included in the study: 40 euthymic BD patients, 40 healthy first-degree relatives, and 40 healthy controls. The groups were balanced in terms of demographic variables that may influence oxidative stress levels, including age, sex, and smoking status. Since the data did not show a normal distribution, group comparisons were performed using the Kruskal–Wallis H test, followed by Bonferroni-corrected post-hoc analyses for pairwise comparisons.

**Results:** The analysis revealed significant differences among the groups in PRDX1 ( $H(2)=10.637$ ,  $p=0.005$ ) and TrxR1 ( $H(2)=16.227$ ,  $p < 0.001$ ) levels. Post-hoc analyses indicated that euthymic BD patients had significantly higher levels of both biomarkers compared with both healthy controls and healthy relatives ( $p < 0.05$ ). No significant differences were found between healthy relatives and the control group for either parameter ( $p=1.000$ ).

## TrxR1



## Prx1



**Discussion:** The findings suggest that increased PRDX1 and TrxR1 levels in BD may reflect a compensatory response associated with the disease process or with treatment effects. The absence of similar elevations in healthy relatives suggests that these markers may be more closely related to the clinical manifestation of the disorder rather than to genetic vulnerability. The persistence of elevated levels despite the euthymic state indicates that cellular redox regulation may remain altered independently of mood episodes. However, larger longitudinal studies are needed to clarify the causal relationship between these changes and bipolar disorder pathophysiology, treatment processes, or medication use.

Ref No: 3523

## Choroidal Vascularity Index in Schizophrenia and Bipolar Disorder

Fatma Büşra Parlakkaya Yıldız<sup>1</sup>, Ayşe Kurtulmuş Çalış<sup>1</sup>, Gonca Dokuz<sup>3</sup>, Tezer Kılıçaslan<sup>4</sup>, Mehmet Hakan Özdemir<sup>2</sup>, İsmet Kırpınar<sup>5</sup>, Ahmet Elbay<sup>2</sup>

<sup>1</sup>Istanbul Medeniyet University

<sup>2</sup>Bezmialem Vakıf University

<sup>3</sup>Maltepe University

<sup>4</sup>Vogelsbergklinik, Grebenhain, Germany

<sup>5</sup>Private Clinic, Istanbul

**Background:** Schizophrenia and bipolar disorder have been associated with vascular and neurovascular alterations. The choroid is a highly vascular tissue of the eye that can be evaluated in vivo using optical coherence tomography (OCT), allowing assessment of total choroidal area (TCA), luminal area (LA), and the choroidal vascularity index (CVI).

**Methods:** This cross-sectional study included 40 patients with bipolar disorder type I in remission, 40 clinically stable patients with schizophrenia, and 40 age- and sex-matched healthy controls. Enhanced depth imaging OCT was used to obtain subfoveal choroidal images. TCA and LA were measured using image binarization, and CVI was calculated as the ratio of luminal to total choroidal area. Clinical characteristics and metabolic parameters, including fasting glucose and HDL cholesterol levels, were recorded. Group comparisons, correlation analyses, and ANCOVA models were performed.

**Results:** Both schizophrenia and bipolar disorder groups showed significantly larger total and luminal choroidal areas compared with healthy controls. CVI differed between groups, with a modest reduction observed in the bipolar disorder group compared with controls. No significant associations were found between choroidal parameters and clinical severity measures. Although HDL levels were lower in schizophrenia, metabolic variables were not independently associated with TCA, LA, or CVI after adjustment.

**Discussion:** Increased choroidal area measurements were observed in both schizophrenia and bipolar disorder, with a relative difference in CVI in bipolar disorder. These findings were not explained by metabolic parameters or current symptom severity. Choroidal structural measurements may provide additional information about microvascular characteristics in severe mental illness.

Ref No: 3678

## Examining Working Memory Performance in Euthymic Patients with Bipolar Mood Disorder Across Groups Characterized by the Predominant Mood State Observed Throughout the Course of the Illness.

SEFA VAYISOđLU<sup>1</sup>, ALİ İNALTEKİN<sup>2</sup>

<sup>1</sup>Kastamonu University Medical Faculty Department of Psychiatry

<sup>2</sup>Bilecik Şeyh Edebali University Medical Faculty Department of Psychiatry

**Background:** Cognitive disorders associated with bipolar disorder negatively affect psychosocial functioning and are observed not only during acute mood episodes of the illness but also during normal mood (euthymic) periods. Working memory is an important cognitive concept that refers to the ability to hold and process information in the mind for a short period. Working memory plays an important role in overall cognitive performance and in maintaining professional and social roles. This study aims to investigate the effect of past attack dominance in terms of depressive or hypomanic/manic episodes on working memory performance in a group of patients with bipolar mood disorder in an euthymic phase.

**Methods:** A total of 59 patients diagnosed with Bipolar Affective Disorder (25 with a predominant depressive episode, 34 with a predominant manic episode) registered at the Kastamonu Education and Research Hospital (KERH) Community Mental Health Centre were included in the study between December 2024 and March 2025. The study has received ethical committee approval from the Kastamonu University Faculty of Medicine Ethics Committee (Project No. 2024-KAEK-127). Informed written consent forms have been obtained from patients before they participate in the study. The Sociodemographic Data Form, Hamilton Depression Rating Scale (HDRS), Young Mania Rating Scale (YMRS), Digit Span Test (Forward-Backwards-Total) (DST, F-B-T), and Trail Making Test (A and B) (TMT, A-B) were used as data collection tools.

**Results:** No differences were found between the groups in sociodemographic data ( $p > 0.05$ ). While the HDRS score was significantly higher in the depressive dominant group ( $p < 0.001$ ) compared to the other group, no significant difference was found between the groups in terms of YMRS ( $p=0.258$ ), TMT-A ( $p=0.425$ ), TMT-B ( $p=0.485$ ), DST-F ( $p=0.319$ ), DST-B ( $p=0.475$ ), and DST-T ( $p=0.877$ ) scores.

**Discussion:** The study concluded that past dominant mood states did not have a significant differential effect on working memory performance. The small sample size may have influenced the outcome. More studies with larger sample sizes are needed on this topic.

Ref No: 4043

## **Blepharospasm and Psychiatric Symptoms in a High-Risk Huntington's Disease Patient: A Case of Symptomatic Response to Mianserin**

Ummuhan Ozkal<sup>1</sup>

<sup>1</sup>University of Health Sciences, Sancaktepe Sehit Prof. Dr. Ilhan Varank Training and Research Hospital, Department of Psychiatry, Istanbul, Turkey

**Objective:** This poster aims to illustrate the intricate diagnostic and therapeutic challenges in a patient at high genetic risk for Huntington's Disease (HD) presenting with a complex neuropsychiatric syndrome. The primary goals are to: 1) Highlight the clinical dilemma of distinguishing between a primary mood/anxiety disorder and the prodromal neuropsychiatric phase of HD, 2) Report the notable symptomatic response of both affective symptoms and comorbid blepharospasm to the antidepressant mianserin, and 3) Emphasize the critical need for comprehensive, integrated neuropsychiatric evaluation and intervention in genetically vulnerable individuals to improve functional outcomes and quality of life.

**Case:** A 42-year-old female with a maternal history of HD presented with a 6-month history of socially and visually disabling blepharospasm, concurrently with 8 months of pervasive low mood, anhedonia, excessive worry, restlessness, and insomnia. Neurological assessment confirmed organic blepharospasm without chorea, ataxia, or other deficits; brain MRI was normal. Within the context of her 50% HD risk and without predictive testing, she was diagnosed with a Major Depressive Episode and Generalized Anxiety Disorder. Treatment with mianserin 30 mg/day was initiated. Within four weeks, significant improvement was observed in mood, anxiety, and sleep. Notably, a pronounced reduction in the frequency and severity of her blepharospasm also occurred, with sustained benefit at follow-up.

**Discussion:** This case centers on the differential between primary psychiatric illness and the HD prodrome. The robust, broad response to mianserin is pivotal to the discussion. Mianserin's established efficacy for depression/anxiety, via alpha-2 adrenergic antagonism and histamine H1-blockade, explains the improvement in core affective symptoms and insomnia. The concurrent amelioration of blepharospasm can be conceptualized through multiple, non-exclusive pathways: 1) Reduction of Psychogenic Amplification: Effective anxiolysis likely reduced stress-induced exacerbation of the dystonia. 2) Neurochemical Modulation: Mianserin's receptor profile (e.g., 5-HT<sub>2</sub> antagonism) may indirectly modulate basal ganglia circuits, implicated in both mood and motor control, potentially influencing striatal pathways central to HD pathology. 3) Somatic Manifestation: The movement disorder may have been a functional somatic expression of the depressive syndrome. This case demonstrates that targeted psychopharmacology for mood and anxiety can provide substantial functional relief across the symptomatic spectrum in patients with complex neuropsychiatric comorbidity, advocating for aggressive treatment of psychiatric morbidity in high-risk HD populations regardless of ultimate etiology.

Ref No: 4446

## Prevalence of bipolar disorder and other psychiatric disorders in military medical board applications

Eda Ferahkaya<sup>1</sup>, Keziban Turgut<sup>1</sup>

<sup>1</sup>Konya City Hospital

**Background:** Psychiatric disorders constitute an important component of military medical board evaluations because they may directly affect judgment, impulse control, stress tolerance, interpersonal functioning, treatment adherence, and overall occupational capacity. In this context, assessment of fitness for military service requires not only categorical diagnosis but also consideration of chronicity, recurrence, remission status, hospitalization history, and functional impairment. This study aimed to determine the prevalence of bipolar disorder and other psychiatric disorders among applicants referred for fitness-for-service evaluation and to further examine the clinical characteristics of applicants with mood disorders.

**Methods:** A total of 903 applicants referred to a hospital-based military medical board were retrospectively evaluated. Psychiatric diagnostic distribution was recorded for the entire sample. In addition, a detailed subgroup analysis was performed for mood disorder cases. Variables examined in this subgroup included age, number of evaluations, hospitalization history, remission status, and board decision categories. Duplicate records in the mood disorder dataset were excluded, and analyses were conducted on 75 cases.

**Results:** Among 903 applications, the most frequent diagnosis was intellectual disability (n=286, 31.67%), followed by psychosis (n=81, 8.97%), anxiety disorders (n=54, 5.98%), bipolar disorder (n=51, 5.65%), and personality disorders with severe behavioral pathology (n=37, 4.10%). Depression was identified in 24 applicants (2.66%). In the mood disorder subgroup, 51 patients (68.0%) had bipolar disorder and 24 (32.0%) had depression. Mean age was 24.9±3.9 years. All bipolar disorder cases were classified as unfit for military service, whereas most depressive disorder cases were classified in the treatment/follow-up category. The most frequent board decision was category 15D (n=36, 48.0%).

**Discussion:** The findings indicate that bipolar disorder represents a notable proportion of psychiatric diagnoses among military medical board applications and is associated with a particularly high rate of unfitness for service. Unlike depressive disorder, which was more often evaluated within treatment and follow-up status, bipolar disorder was consistently linked to board decisions reflecting greater clinical severity, recurrence, or chronicity. This pattern suggests that military fitness assessments are strongly shaped by longitudinal illness burden rather than diagnosis alone. The prominence of intellectual disability and psychosis was expected, yet the substantial representation of bipolar disorder highlights its functional relevance in this setting. These results support the importance of comprehensive psychiatric assessment in military medical boards, with particular attention to course specifiers, relapse history, and real-world functioning in applicants with mood disorders.

Ref No: 4723

## Retrospective Evaluation of Consultation Liaison Psychiatry Practices in a University Hospital

Seda Kırıcı Ercan<sup>1</sup>

<sup>1</sup>Adnan Menderes University, Department of Psychiatry

**Background:** Psychiatric comorbidity among general-hospital inpatients can impair adherence, increase care complexity, and worsen outcomes. Consultation-liaison psychiatry (CLP) is crucial for early recognition, appropriate diagnosis, and integrated treatment/follow-up planning. We evaluated referral reasons, the rate of definitive diagnoses, and patterns of interventions/recommendations in a tertiary university hospital. According to the results obtained, the aim was to increase the effectiveness of CLP applications across different branches and to identify areas for improvement in the recognition and regulation of treatment processes for psychiatric comorbidities.

**Methods:** We retrospectively reviewed inpatient CLP consultations between 01/01/2025 and 31/12/2025 at a tertiary university hospital. Forensic consultations and records with missing consultation responses were excluded. Demographics, referring wards, referral-reason categories and consultation outputs were summarised. “Definitive diagnosis” was defined as an explicit DSM/ICD-compatible diagnostic label documented in the consultation report. Multivariable logistic regression examined factors associated with definitive diagnosis documentation. The study was approved by the local Ethics Committee (Approval No: 2026/55), and written informed consent was waived due to the retrospective design.

**Results:** We analysed 1043 consultations (mean age  $60.1 \pm 18.3$  years; male 51.6%,  $n=538$ ). Referrals mainly originated from medical wards and intensive care units. The most frequent referral reasons were other/unclear (31.4%,  $n=328$ ), agitation/behavioural disturbance (16.2%,  $n=169$ ), delirium/confusion (12.4%,  $n=129$ ), sleep complaints (8.1%,  $n=84$ ), and depressive symptoms (6.1%,  $n=64$ ). Recommendations commonly included medication initiation/adjustment (80.5%,  $n=840$ ), follow-up (59.0%,  $n=616$ ), and work-up/investigation suggestions (45.4%,  $n=474$ ). Definitive diagnostic labelling was documented in 34.2% ( $n=357$ ). Among definitive diagnoses, mood disorders were the most frequent diagnostic group (29.7%,  $n=106$ ). Compared with agitation referrals, definitive diagnosis documentation was more likely for sleep complaints (OR 2.90), anxiety/panic (OR 2.42) and depressive symptoms (OR 2.36), and less likely for delirium/confusion referrals (OR 0.27).

**Discussion:** CLP consultations in medically complex settings frequently lead to medication-related recommendations, while definitive diagnostic labelling is documented in about one-third of reports, particularly low in delirium/confusion contexts. Structured referral templates, standardised reporting with a diagnostic certainty field, and targeted pathways for high-risk wards (e.g., ICU/delirium) may improve interdisciplinary communication and support earlier recognition and management of mood-related presentations.

Ref No: 5055

## Individualized Structural Brain Deviations in Major Depressive Disorder: A Normative Modeling Study

Ibrahim Sungur<sup>1</sup>, Ezgi Key<sup>1</sup>, Mehmet Cagdas Eker<sup>1</sup>, Ali Saffet Gonul<sup>1</sup><sup>1</sup>Department of Psychiatry, Ege University School of Medicine

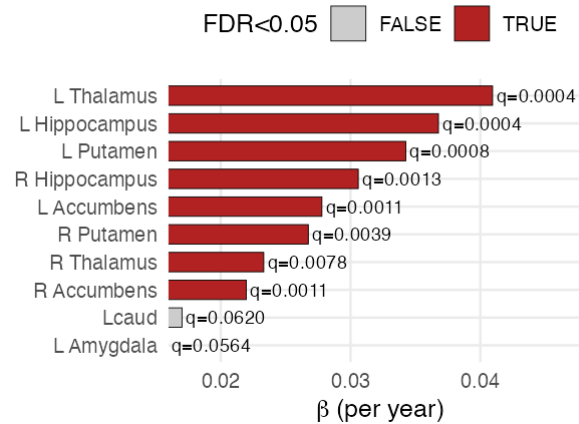
**Background:** Normative modeling allows quantification of individual-level deviations in brain structure relative to population-based reference distributions. This approach is particularly relevant for major depressive disorder (MDD), a condition marked by heterogeneity and subtle neuroanatomical alterations. We aimed to determine whether deviation burden differentiates patients with MDD from healthy controls, and whether deviations are associated with clinical variables, including symptom severity, recurrence, and age.

**Methods:** Structural MRI data were acquired from 79 patients with MDD (mean age  $40.2 \pm 12.7$ , 71 female) and 79 healthy controls (mean age  $40.2 \pm 12.7$ , 69 female), processed with FreeSurfer v7.4.1. Normative deviation z-scores for cortical thickness, surface area, and subcortical volumes were derived from the CentileBrain model (37,407 healthy individuals, 53.3% female, aged 3–90 years). Burden metrics were defined as the proportion of ROIs with  $|z| \geq 1.96$ , computed at global, lobar, and ROI levels. Associations with the Hamilton Depression Rating Scale (HDRS), the Beck Depression Inventory (BDI), and recurrence status were examined. To assess age effects, ROI-wise linear models ( $zROI \sim \text{Age} + \text{Sex}$ ) were estimated within MDD and controls, with FDR correction per modality. To exclude potential bias, z-scores were residualized for age in controls, and analyses were repeated.

**Results:** Global burden metrics (CT, SA, SV) did not differ between MDD and controls ( $AUC \approx 0.5$ ) and showed no associations with HDRS, BDI, or recurrence. Furthermore, the normative modelling approach revealed individualized patterns of anatomic abnormalities in depressed patients (less than 19% extreme deviation overlapping for any regions). However, ROI-level analyses revealed robust age effects in MDD: Subcortical regions (fig. 1): significant positive associations with age were observed in left hippocampus ( $\beta = +0.037$ ,  $q = 0.0004$ ), left thalamus ( $\beta = +0.041$ ,  $q = 0.0004$ ), left putamen ( $\beta = +0.034$ ,  $q = 0.0008$ ), left accumbens ( $\beta = +0.028$ ,  $q = 0.0011$ ), right accumbens ( $\beta = +0.022$ ,  $q = 0.0011$ ), right hippocampus ( $\beta = +0.031$ ,  $q = 0.0013$ ), right putamen ( $\beta = +0.027$ ,  $q = 0.0039$ ), and right thalamus ( $\beta = +0.023$ ,  $q = 0.0078$ ). The left amygdala showed a trend-level effect ( $\beta = +0.016$ ,  $q = 0.056$ ). Cortical regions: the right lateral occipital surface area showed a negative association ( $\beta = -0.037$ ,  $q = 0.0052$ ). After residualizing z-scores in controls, these subcortical and cortical associations in MDD remained significant, confirming that effects are not attributable to model bias (fig. 2).

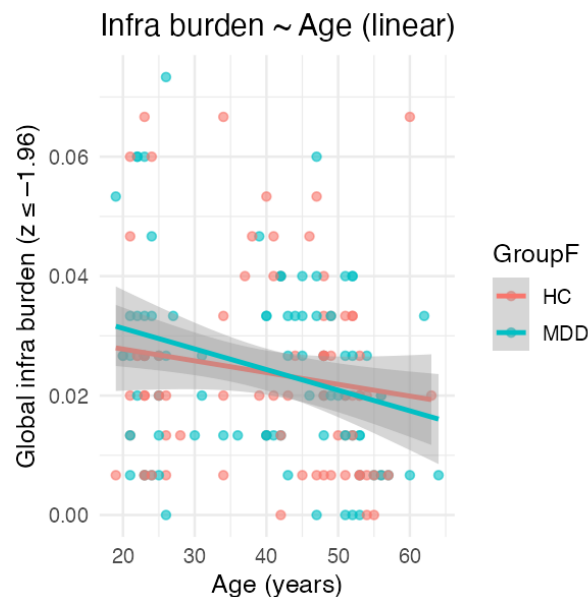
Figure1

### Age associations in MDD



### Age-related infranormal deviations in major depressive disorder

Figure2



### Association between age and global infranormal deviation burden

**Discussion:** Capturing personalized deviations from a normative range could help in understanding the heterogeneous neurobiology of depression. Normative modeling revealed marked inter-individual heterogeneity in MDD and highlighted that age-related deviations are largely confined to subcortical circuits. These findings suggest that MDD is associated with progressive structural deviations in subcortical regions with advancing age, whereas cortical effects are preserved.

Ref No: 6913

## Emotion Regulation Difficulties in Ischemic Stroke: Associations With Depression, Anxiety, and Sleep Quality

Büşra Uçar Bostan<sup>1</sup>, Abdurrahman Şahin<sup>2</sup>, Sinem Kübra Beke<sup>3</sup>, Havva Talay Çalış<sup>4</sup>

<sup>1</sup>Bakırköy Prof. Mazhar Osman Training and Research Hospital for Psychiatry, Neurology, and Neurosurgery- Psychiatry

<sup>2</sup>Kayseri City Hospital- Physical Medicine and Rehabilitation

<sup>3</sup>Erciyes University Faculty of Medicine- Physical Medicine and Rehabilitation

<sup>4</sup>Health Sciences University of Turkey, Kayseri City Hospital- Physical Medicine and Rehabilitation

**Background:** Depression, anxiety, and sleep disturbances are common psychiatric symptoms following ischemic stroke. Difficulties in emotion regulation are widely studied as transdiagnostic processes associated with psychiatric disorders; however, their role in psychiatric symptoms after stroke remains insufficiently explored. Therefore, this study aimed to examine the association between emotion regulation difficulties and depression, anxiety, and sleep quality among patients with ischemic stroke.

**Methods:** This cross-sectional study included patients with ischemic stroke who were hospitalized in the Physical Medicine and Rehabilitation Clinic of Kayseri City Hospital between April and September 2024. A total of 97 patients with ischemic stroke who were at least three months post-stroke and had a Standardized Mini-Mental State Examination score  $\geq 24$  were included. Sociodemographic and clinical characteristics were recorded using a structured data form, and participants completed the Difficulties in Emotion Regulation Scale (DERS), Hospital Anxiety and Depression Scale, and Pittsburgh Sleep Quality Index. Functional status and motor recovery were assessed using the Barthel Index for Activities of Daily Living and the Brunnstrom Hemiplegia Recovery Scale.

**Results:** Clinically significant depressive symptoms were present in 46.4% of patients with ischemic stroke, while 16.5% had clinically significant anxiety symptoms. Patients with clinically significant depressive or anxiety symptoms had significantly higher DERS total and subscale scores and lower Barthel Index scores compared with those without such symptoms ( $p < 0.05$ ). In addition, poor sleep quality was observed in 39.2% of patients, and those with poor sleep quality also had higher DERS total and several subscale scores ( $p < 0.05$ ). Regression analyses indicated that, among DERS subscales, non-acceptance was significantly associated with anxiety symptoms ( $\beta = .28$ ,  $p = .032$ ), whereas clarity was significantly associated with depressive symptoms ( $\beta = .26$ ,  $p = .031$ ); however, no significant model was found for sleep quality.

**Discussion:** Difficulties in emotion regulation appear to be associated with depressive and anxiety symptoms and sleep quality in patients with ischemic stroke. These findings suggest that emotion regulation difficulties may play a role in post-stroke psychiatric symptoms. Interventions targeting adaptive emotion regulation strategies may therefore represent a non-pharmacological approach for managing post-stroke depressive and anxiety symptoms.

Ref No: 7169

## Assessment of the Effects of Cataract Surgery on Cognition and Apathy in Individuals

Tuna Eker<sup>1</sup>, Mahmut Selçuk<sup>1</sup>, Müjdat Karabulut<sup>2</sup>, Sinem Karabulut<sup>2</sup>

<sup>1</sup>Department of Psychiatry, Faculty of Medicine, Muğla Sıtkı Koçman University, Muğla, Turkey

<sup>2</sup>Department of Ophthalmology, Faculty of Medicine, Muğla Sıtkı Koçman University, Muğla, Turkey

**Background:** Senile cataract is one of the most common conditions leading to visual impairment with advancing age. Visual deterioration caused by senile cataract has been suggested as an important risk factor for the development of cognitive disorders. In this study, considering the existing literature, we aimed to evaluate the effects of vision improvement following cataract surgery on cognition, depressive symptoms, anxiety symptoms, and apathy levels, as well as their relationship with sociodemographic variables.

**Methods:** In accordance with the study objectives, patients were evaluated in three consecutive clinical assessments: before cataract surgery, one week after surgery, and one month after surgery. Neuropsychological tests were administered during clinical interviews, including the Mini Mental State Examination (MMSE), Montreal Cognitive Assessment (MoCA), Apathy Evaluation Scale (AES), Hamilton Anxiety Rating Scale (HARS), and Hamilton Depression Rating Scale (HDRS). A total of 160 participants were included in the study, consisting of 80 individuals in the case group and 80 individuals in the control group.

**Results:** Improvements in cognitive scores (MMSE and MoCA) were observed following cataract surgery. However, no statistically significant differences were found between the intervention and control groups in terms of MMSE and MoCA scores. Changes in HDRS and HARS scores after cataract surgery were significantly greater in the case group compared with the control group. Improvement in vision following cataract surgery was associated with reductions in depressive and anxiety symptoms. Similarly, the decrease in AES scores was significantly greater in the intervention group than in the control group. While no significant difference in apathy scores was observed at the first postoperative evaluation, a significant improvement was detected at the second postoperative assessment.

## Comparison of neuropsychological score changes between case and control groups

| Comparison | Case (Mean±SD) | Control (Mean±SD) | p      |
|------------|----------------|-------------------|--------|
| SMMT 2-1   | 0.73±1.08      | 0.54±1.40         | 0.128  |
| SMMT 3-1   | 0.60±1.21      | 0.49±1.82         | 0.564  |
| SMMT 3-2   | -0.13±0.88     | -0.05±1.50        | 0.408  |
| MoCA 2-1   | 1.11±1.65      | 1.09±1.47         | 0.918  |
| MoCA 3-1   | 1.31±1.70      | 0.88±1.78         | 0.095  |
| MoCA 3-2   | 0.20±1.29      | -0.21±1.28        | 0.146  |
| HARS 2-1   | -1.35±2.05     | -0.01±0.49        | <0.001 |
| HARS 3-1   | -2.05±3.16     | -0.03±0.91        | <0.001 |
| HARS 3-2   | -0.70±1.47     | -0.01±0.67        | <0.001 |
| HDRS 2-1   | -0.46±1.16     | 0.03±0.53         | <0.001 |
| HDRS 3-1   | -0.75±1.55     | 0.01±0.85         | <0.001 |
| HDRS 3-2   | -0.29±0.73     | -0.01±0.86        | 0.001  |
| AES 2-1    | -0.06±0.51     | -0.01±0.34        | 0.203  |
| AES 3-1    | -0.26±1.33     | 0.05±0.59         | 0.008  |
| AES 3-2    | -0.20±1.19     | 0.06±0.70         | 0.024  |

Changes in MMSE, MoCA, HARS, HDRS and AES scores between measurements in case and control groups.

**Discussion:** These findings suggest that senile cataract may represent a potential risk factor for cognitive impairment and neuropsychiatric symptoms in older adults. Improvement in vision following appropriate cataract intervention may contribute to better mental health outcomes, including reductions in depressive symptoms, anxiety, and apathy. Therefore, in geriatric psychiatric evaluations, it is important to consider treatable visual impairments such as cataract as potentially modifiable factors influencing mental health.

Ref No: 7248

## Individualized Structural Brain Deviations in Major Depressive Disorder: A Normative Modeling Study

Ibrahim Sungur<sup>1</sup>, Ezgi Key<sup>1</sup>, Mehmet Cagdas Eker<sup>1</sup>, Ali Saffet Gonul<sup>1</sup>

<sup>1</sup>Department of Psychiatry, Ege University School of Medicine

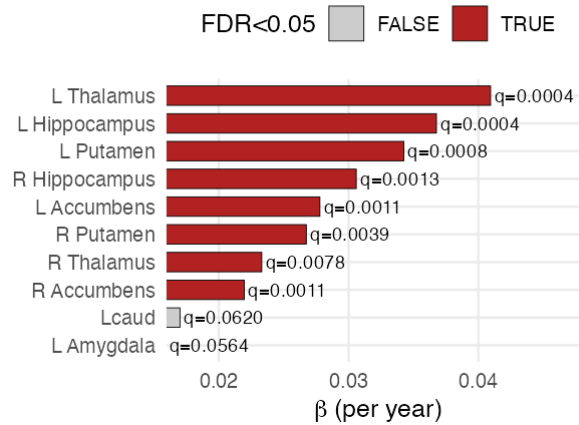
**Background:** Normative modeling allows quantification of individual-level deviations in brain structure relative to population-based reference distributions. This approach is particularly relevant for major depressive disorder (MDD), a condition marked by neuroanatomical alterations. We aimed to determine whether deviation burden differentiates patients with MDD from healthy controls, and whether deviations are associated with clinical variables.

**Methods:** Structural MRI data were acquired from 79 patients with MDD (mean age 40.2±12.7, 71 female) and 79 healthy controls (mean age 40.2±12.7, 69 female), processed with FreeSurfer v7.4.1. Normative deviation z-scores for cortical thickness, surface area, and subcortical volumes were derived from the CentileBrain model (37,407 healthy individuals, 53.3% female, aged 3-90 years). Burden metrics were defined as the proportion of ROIs with  $|z| \geq 1.96$ . Associations with the Hamilton Depression Rating Scale (HDRS), the Beck Depression Inventory (BDI), and recurrence status were examined. To assess age effects, ROI-wise linear models ( $zROI \sim Age + Sex$ ) were estimated within MDD and controls, with FDR correction per modality. To exclude potential model-fitting bias, z-scores were residualized for age, and analyses were repeated.

**Results:** Global burden metrics (CT, SA, SV) did not differ between MDD and controls ( $AUC \approx 0.5$ ) and showed no associations with HDRS, BDI, or recurrence of episodes. Furthermore, the normative modelling approach revealed individualized patterns of anatomic abnormalities in depressed patients (less than 19% extreme deviation overlapping for any regions). However, ROI-level analyses revealed robust age effects in MDD: Subcortical regions (fig. 1): significant positive associations with age were observed in left hippocampus ( $\beta = +0.037$ ,  $q = 0.0004$ ), left thalamus ( $\beta = +0.041$ ,  $q = 0.0004$ ), left putamen ( $\beta = +0.034$ ,  $q = 0.0008$ ), left accumbens ( $\beta = +0.028$ ,  $q = 0.0011$ ), right accumbens ( $\beta = +0.022$ ,  $q = 0.0011$ ), right hippocampus ( $\beta = +0.031$ ,  $q = 0.0013$ ), right putamen ( $\beta = +0.027$ ,  $q = 0.0039$ ), and right thalamus ( $\beta = +0.023$ ,  $q = 0.0078$ ). The left amygdala showed a trend-level effect ( $\beta = +0.016$ ,  $q = 0.056$ ). Cortical regions: the right lateral occipital surface area showed a negative association ( $\beta = -0.037$ ,  $q = 0.0052$ ). After residualizing z-scores in controls, these subcortical and cortical associations in MDD remained significant, confirming that effects are not attributable to model bias (fig. 2).

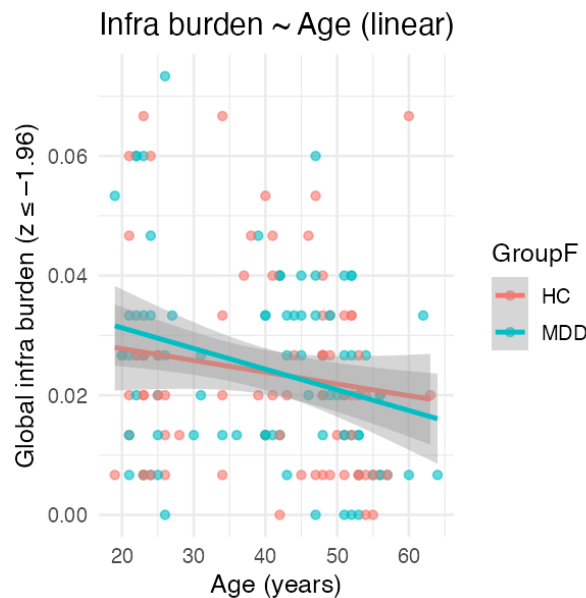
Figure 1

### Age associations in MDD



### Age-related infranormal deviations in major depressive disorder

Figure 2



### Association between age and global infranormal deviation burden

**Discussion:** Capturing personalized deviations from a normative range could help in understanding the heterogeneous neurobiology of depression. Normative modeling revealed marked inter-individual heterogeneity in MDD and highlighted that age-related deviations are largely confined to subcortical circuits. These findings suggest that MDD is associated with progressive structural deviations in subcortical regions with advancing age, whereas cortical effects are preserved.

Ref No: 7290

## ASSOCIATION BETWEEN SUICIDAL IDEATION AND PSYCHIATRIC SYMPTOM SEVERITY AMONG SURVIVORS OF THE 2023 KAHRAMANMARAŞ EARTHQUAKE

Özge Selin Özen Sekmek<sup>1</sup>, Hayriye Mihrimah Öztürk<sup>2</sup>, Koray Hamza Cihan<sup>1</sup>, Gül Betül Ulu<sup>3</sup>, Elif Gizem Yalvaç<sup>4</sup>, Aslıhan Taş<sup>2</sup>, Hatice Sude Yıldız<sup>5</sup>, Saadin Oyucu<sup>6</sup>, Muhammet Emin Korkut<sup>6</sup>, Gülfem Erva Altun<sup>6</sup>, Hüseyin Polat<sup>6</sup>, Behice Han Almış<sup>1</sup>, Birgül Cumurcu<sup>4</sup>, Erguvan Tuğba Özel Kızıl<sup>7</sup>

<sup>1</sup>SBÜ Sincan Training and Research Hospital, Psychiatry Clinic, Ankara, Turkey

<sup>2</sup>Kırıkkale University Faculty of Medicine, Psychiatry Clinic, Kırıkkale, Turkey

<sup>3</sup>Adıyaman Training and Research Hospital, Psychiatry Clinic, Adıyaman, Turkey

<sup>4</sup>Inönü University Faculty of Medicine, Psychiatry Clinic, Malatya, Turkey

<sup>5</sup>Adıyaman University Faculty of Medicine, Adıyaman, Turkey

<sup>6</sup>Gazi University, Department of Computer Engineering, Faculty of Technology, Ankara, Turkey

<sup>7</sup>Ankara University Faculty of Medicine, Psychiatry Clinic, Ankara, Turkey

**Background:** Earthquakes can have profound and lasting impacts on mental health, with increased rates of depression, anxiety, post-traumatic stress disorder (PTSD), and suicide risk among survivors (1). Previous studies suggest that up to 81.5% of earthquake survivors experience unplanned suicidal ideation (2). However, findings regarding the relationship between psychological symptoms and suicidal ideation in earthquake survivors remain inconsistent. Some studies reported that psychological symptoms (PTSD, depression, anxiety) were not associated with suicide risk five years after the earthquake (3); Some studies have shown that certain PTSD symptom clusters, total PTSD scores, and depressive symptoms are associated with suicide (4). Furthermore, some studies reveal a strong correlation between PTSD, anxiety, and depression and suicide (5). This study aims to clarify the relationship between PTSD, depression, anxiety, and suicidal ideation in earthquake survivors, thereby contributing to improved suicide risk assessment in this population.

**Methods:** This study analyzed preliminary data from 154 individuals affected by the earthquake, as part of the TUBITAK 1001 Project No. 323S218. After obtaining informed consent, participants provided sociodemographic information and underwent psychiatric assessment using the Beck Depression Inventory (BDI), State and Trait Anxiety Inventory (STAI), and Clinician-Administered PTSD Scale (CAPS-5). Suicidal ideation was assessed via item eight of the BDI, and participants were categorized accordingly. Group differences in scale scores were evaluated using Independent Samples T-Test.

**Results:** Participants with suicidal ideation had significantly higher STAI state scores (mean±SD=51.95±12.06; p=0.011), STAI trait scores (mean±SD=58.29±9.79; p < 0.001), and CAPS-5 total scores (mean±SD=56.05±27.27; p=0.046) compared to those without suicidal ideation (mean±SD=44.22±11.95; 47.53±9.92; 42.80±24.51, respectively).

**Discussion:** These findings align with studies demonstrating that suicidal ideation is more prevalent among earthquake survivors exhibiting PTSD, depression, and anxiety symptoms (5). Discrepancies in the literature may result from differences in assessment tools and the timing of evaluations post-earthquake. These findings underscore the critical importance of jointly assessing depression, anxiety, and PTSD symptoms when evaluating suicide risk in post-disaster mental health interventions.

Ref No: 7457

## Validity and Reliability of the Turkish Version of Barcelona Bipolar Eating Disorder Scale

Safiye Zeynep Tatlı<sup>1</sup>, Hasan Ünver<sup>1</sup>, İbrahim Gündoğmuş<sup>1</sup>, Hasan Karadağ<sup>1</sup>, Kadir Özdel<sup>1</sup>, Gamze Erzin<sup>1</sup>

<sup>1</sup>Ankara Etlik City Hospital

**Background:** Eating disorders are clinically important comorbidities in bipolar disorder (BD) and are associated with poorer outcomes. The Barcelona Bipolar Eating Disorder Scale (BEDS) is a brief self-report instrument developed to screen disordered eating in individuals with BD. This study aimed to adapt the BEDS into Turkish and evaluate its validity and reliability in a Turkish sample.

**Methods:** The study included 100 patients with BD and 129 healthy controls recruited at Ankara Etlik City Hospital, Department of Psychiatry. Diagnoses were established according to DSM-5 and confirmed with SCID-5. Euthymia was assessed using the Young Mania Rating Scale (YMRS) and Hamilton Depression Rating Scale (HAM-D), with a cut-off of 7. The Turkish adaptation of the BEDS was performed using forward-backward translation. Participants completed a sociodemographic form, BEDS, Bulimic Investigatory Test Edinburgh (BITE), Dutch Eating Behavior Questionnaire (DEBQ), and Brief Psychiatric Rating Scale (BPRS). Internal consistency was examined with Cronbach's alpha and item-total correlations. Construct validity was assessed by principal component analysis, and convergent validity by correlations with BITE, DEBQ, YMRS, HAM-D, and BPRS.

**Results:** No statistically significant difference was found between the BD and healthy control groups in BEDS total score, BITE score, or DEBQ total and subscale scores. The mean BEDS score in the full sample was  $9.46 \pm 5.58$ . Item-total correlations ranged from 0.313 to 0.644. Cronbach's alpha for the Turkish BEDS was 0.821, and deletion of any item did not improve internal consistency. Principal component analysis supported factorability (KMO=0.846; Bartlett's test  $\chi^2=640.005$ ,  $df=45$ ,  $p < 0.001$ ). Factor loadings ranged from 0.341 to 0.717. One factor was identified, with an eigenvalue of 3.326, explaining 33.256% of the variance. BEDS total score was significantly correlated with BITE ( $r=-0.555$ ,  $p < 0.001$ ), DEBQ total ( $r=0.542$ ,  $p < 0.001$ ), emotional eating ( $r=0.530$ ,  $p < 0.001$ ), and external eating ( $r=0.532$ ,  $p < 0.001$ ), but not with restrictive eating, YMRS, HAM-D, or BPRS.

Comparison of demographic and clinical characteristics and scale scores of the patient and healthy control groups

|                                  | Bipolar disorder<br>(n=100) | Healty control<br>(n=129) | Statistical analysis         |
|----------------------------------|-----------------------------|---------------------------|------------------------------|
| Age, years, mean (SD)            | 39.21 (11.79)               | 29.42 (10.52)             | t=6.620a, p<0.001            |
| Gender; n (%)                    |                             |                           |                              |
| Female                           | 54 (54.0)                   | 52 (40.3)                 |                              |
| Male                             | 46 (46.0)                   | 77 (59.7)                 |                              |
| Education time, years, mean (SD) | 10.83 (3.62)                | 14.89 (2.44)              | t=-10.114a, p<0.001          |
| Marital status; n (%)            |                             |                           | $\chi^2 = 8.731b$ , p=0.013  |
| Single                           | 44 (44.0)                   | 82 (63.6)                 |                              |
| Married                          | 47 (47.0)                   | 30 (30.2)                 |                              |
| Divorced                         | 9 (9.0)                     | 8 (6.2)                   |                              |
| Income; n (%)                    |                             |                           | $\chi^2 = 46.255b$ , p<0.001 |
| 0                                | 38 (38.0)                   | 8 (6.2)                   |                              |
| Low                              | 12 (12.0)                   | 32 (24.8)                 |                              |
| Middle                           | 19 (19.0)                   | 59 (45.7)                 |                              |
| High                             | 31 (31.0)                   | 30 (23.3)                 |                              |
| Work status(working); n (%)      |                             |                           | $\chi^2 = 59.542b$ , p<0.001 |
| Working                          | 29 (29.0)                   | 73 (56.6)                 |                              |
| Non-working                      | 53 (53.0)                   | 13 (10.1)                 |                              |
| Student                          | 9 (9.0)                     | 38 (29.5)                 |                              |
| Retired                          | 9 (9.0)                     | 5 (3.9)                   |                              |
| Cigarette; n (%)                 |                             |                           | $\chi^2 = 2.314 b$ , p=0.128 |

|                       |               |               |                       |
|-----------------------|---------------|---------------|-----------------------|
| No                    | 48 (48.0)     | 49 (38.0)     |                       |
| Yes                   | 52 (52.0)     | 80 (62.0)     |                       |
| packs/year, mean (SD) | 7.97 (10.98)  | 2.23 (5.11)   | t =5.247 a, p<0.001   |
| Height (cm)           | 168 (9.59)    | 169 (18.77)   | t=-0.421 a, p=0.674   |
| Weight (kg)           | 84.75 (15.69) | 70.83 (17.03) | t=6.342 a, p<0.001    |
| YMRS, mean (SD)       | 0.87 (1.48)   |               |                       |
| HAM-D, mean (SD)      | 1.81 (1.88)   |               |                       |
| BPRS, mean (SD)       | 1.98 (2.13)   |               |                       |
| BITE, mean (SD)       | 17.75 (3.85)  | 17.49 (3.69)  | t =0.501 a, p= 0.617  |
| DEBQ, mean (SD)       |               |               |                       |
| Emotional eating      | 22.88 (10.57) | 26.45 (11.88) | t =-2.364 a, p=0.019  |
| Restrictive eating    | 24.06 (8.12)  | 24.26 (7.80)  | t =0.191 a, p=0.849   |
| External eating       | 28.48 (7.86)  | 28.67 (6.78)  | t =-0.201 a, p=0.841  |
| Total                 | 75.34 (17.94) | 79.38 (17.99) | t =-1.684 a, p= 0.094 |
| BEDS, mean (SD)       | 10.01 (6.37)  | 9.04 (4.87)   | t =1.297 a, p=0.196   |

BPRS: Brief Psychiatric Rating Scale, BITE: Bulimic Investigatory Test Edinburgh, DEBQ: The Dutch Eating Behavior Questionnaire, BEDS: Barcelona Bipolar Eating Disorder Scale , YMRS: Young Mani Rating Scale, HAM-D: Hamilton Depression Rating Scale, a; Student-T Test, b ; Chi-square Test, Bold values indicate P-value of < 0.05

#### Item characteristics of the BEDS

|       | Mean (SD)   | Item-r correlation | If item dropped Cronbach's $\alpha$ | Scale Mean if Item Deleted |
|-------|-------------|--------------------|-------------------------------------|----------------------------|
| Item1 | 0.76 (0.88) | 0.431              | 0.813                               | 8,70                       |

|        |             |       |       |      |
|--------|-------------|-------|-------|------|
| Item2  | 1.17 (0.95) | 0.535 | 0.802 | 8,29 |
| Item3  | 0.59 (0.84) | 0.476 | 0.808 | 8,87 |
| Item4  | 0.66 (0.88) | 0.571 | 0.798 | 8,80 |
| Item5  | 0.60 (0.83) | 0.432 | 0.812 | 8,86 |
| Item6  | 0.96 (0.93) | 0.602 | 0.795 | 8,50 |
| Item7  | 0.73 (0.86) | 0.618 | 0.794 | 8,73 |
| Item8  | 1.55 (1.01) | 0.314 | 0.827 | 7,91 |
| Item9  | 1.03 (0.91) | 0.644 | 0.790 | 8,44 |
| Item10 | 1.37 (0.89) | 0.452 | 0.811 | 8,10 |

Factor loadings and Cronbach's Alpha coefficient of the scale in full study population

|       | Factor Loadings | Uniqueness |
|-------|-----------------|------------|
| Item1 | 0.486           | 0.763      |
| Item2 | 0.586           | 0.657      |
| Item3 | 0.524           | 0.726      |

|        |       |       |
|--------|-------|-------|
| Item4  | 0.662 | 0.562 |
| Item5  | 0.487 | 0.763 |
| Item6  | 0.661 | 0.563 |
| Item7  | 0.708 | 0.499 |
| Item8  | 0.341 | 0.884 |
| Item9  | 0.717 | 0.485 |
| Item10 | 0.478 | 0.771 |

Correlations between the total score of the BEDS and the DEBQ (total and subgroups), YMRS, BITE, HAM-D, BPRS in full study population

|                       |   |            |
|-----------------------|---|------------|
|                       |   | BEDS Total |
| BITE                  | r | -0.555     |
|                       | p | < .001     |
| DEBQ-emotional eating | r | 0.530      |
|                       | p | < .001     |

|                          |   |        |
|--------------------------|---|--------|
| DEBQ -restrictive eating | r | -0.021 |
|                          | p | 0.752  |
| DEBQ -external eating    | r | 0.532  |
|                          | p | < .001 |
| DEBQ -total              | r | 0.542  |
|                          | p | < .001 |
| YMRS                     | r | 0.090  |
|                          | p | 0.373  |
| HAM-D                    | r | 0.181  |
|                          | p | 0.072  |
| BPRS                     | r | 0.078  |
|                          | p | 0.441  |

BPRS: Brief Psychiatric Rating Scale, BITE: Bulimic Investigatory Test, Edinburgh, DEBQ: The Dutch Eating Behavior Questionnaire, BEDS: Barcelona Bipolar Eating Disorder Scale, YMRS: Young Mani Rating Scale, HAM-D: Hamilton Depression Rating Scale, Bold values indicate P-value of < 0.05

**Discussion:** The Turkish version of the BEDS demonstrated good internal consistency, a coherent one-factor structure, and meaningful associations with related eating behavior measures. These findings support its validity and reliability as a brief screening instrument for disordered eating in Turkish individuals with BD. Its brevity and self-report format may make it useful in both clinical practice and research.

# POSTER PRESENTATIONS

Ref No: 2895

## Prevalence of Bipolar Disorder in Patients with Temporomandibular Disorders

Gonca Ayşe Ünal<sup>1</sup>

<sup>1</sup>Mersin Şehir Eğitim ve Araştırma Hastanesi

**Background:** Bipolar disorder is a recurrent chronic disorder characterised by fluctuations in mood state and energy. Temporomandibular Disorders (TMD) are a group of joint and muscle disorders that affect the orofacial region. Psychological factors are considered to be quite important in the development of TMD, in accordance with the biopsychosocial model of health and disease. The aim of the study was to evaluate whether TMD and bruxism were more common in those diagnosed with Bipolar Disorder.

**Methods:** The study included 60 individuals aged 18-60 years who were diagnosed with Bipolar Disorder according to DSM-5. The presence and severity of TMD were assessed using the Fonseca Anamnestic Index (FAI). The presence of bruxism was assessed using a standardized assessment form (Standardized Tool for the Assessment of Bruxism - STAB Axis A).

**Results:** Temporomandibular Disorders was detected in 63.3% of 60 participants. TMD was found to be severe in 34.2% of participants. Sleep bruxism and awake bruxism were evident in 55% and 45% respectively.

**Discussion:** The results show that the prevalence of TMD and bruxism is quite high in individuals with Bipolar Disorder. Considering the negative effects of TMD and bruxism on quality of life and oral functions, it is considered important that those with mental disorders be routinely evaluated for TMD and bruxism and that necessary interventions be carried out accordingly.

Ref No: 3723

## Cinema Therapy and Cinema Education in Addiction Treatment

Sema Buzrul Sönmez<sup>1</sup><sup>1</sup>İzmir Demokrasi Üniversitesi Buca Seyfi Demirsoy Eğitim ve Araştırma Hastanesi

**Background:** Bağımlılık, biyolojik, psikolojik ve sosyal bileşenleri olan kronik ve yineleyici bir hastalıktır. Tedavi sürecinde yalnızca farmakolojik müdahaleler değil, bireyin motivasyonunu, içgörüsünü ve psikososyal işlevselliğini artıran psikoeğitsel yaklaşımlar da önemli yer tutmaktadır. Sinematerapi ve sine-eğitim, filmlerin metaforik ve öğretici gücünden yararlanarak bağımlılık tedavisine destek sağlayan yenilikçi yöntemlerdir. Bu çalışmanın amacı, sinematerapi ve sine-eğitim uygulamalarının bağımlılık tedavisindeki kullanım alanlarını, terapötik katkılarını ve toplum ruh sağlığı hizmetlerindeki potansiyel rolünü değerlendirmektir.

**Methods:** Sinematerapi uygulamalarında bağımlılık temalı film ve sahneler terapötik süreçte yapılandırılmış biçimde kullanılmakta; izleme öncesi yönlendirme, izleme sonrası tartışma ve klinik ilişkilendirme aşamaları izlenmektedir. Sine-eğitim uygulamalarında ise filmler psikoeğitim, relaps önleme ve beceri geliştirme amaçlı grup çalışmalarında kullanılmaktadır. Film seçimi, klinik uygunluk, tetikleyici içerik riski ve terapötik hedefler dikkate alınarak yapılmaktadır.

**Results:** Klinik gözlemler ve literatür bulguları, film temelli uygulamaların bağımlılık tedavisinde önemli katkılar sağladığını göstermektedir. Bu uygulamalar tedavi motivasyonunu artırmakta, bireylerin bağımlılık döngüsünü daha iyi anlamalarına yardımcı olmakta ve relaps risk faktörlerinin fark edilmesini kolaylaştırmaktadır. Ayrıca grup terapilerinde paylaşımı artırarak terapötik ittifakı güçlendirdiği, aile eğitimlerinde ise eşbağımlılık ve iletişim sorunlarının daha kolay ele alınmasını sağladığı gözlenmektedir.

**Discussion:** Sinematerapi ve sine-eğitim, bağımlılık tedavisinde farmakolojik ve psikoterapötik yaklaşımları destekleyen etkili psikososyal müdahale araçlarıdır. Toplum ruh sağlığı merkezlerinde, rehabilitasyon programlarında ve psikoeğitim gruplarında yapılandırılmış biçimde kullanılması tedavi motivasyonunun artırılması, içgörü geliştirilmesi ve relaps önleme çalışmalarının güçlendirilmesi açısından önemli katkılar sağlayabilir. Gelecek araştırmaların kontrollü çalışmalarla bu yöntemlerin etkinliğini daha ayrıntılı biçimde incelemesi önerilmektedir.

Ref No: 4521

## MALIGNANT ANXIETY SYNDROME IN A PREGNANT PATIENT: A CASE REPORT

Ömer Osman Bazna<sup>1</sup>

<sup>1</sup>Ankara Gülhane Training and Research Hospital Mental Health and Diseases Clinic

**Objective:** Malignant anxiety syndrome is a severe, agitated anxiety state characterized by persistent inner tension, hyperarousal, insomnia, and marked psychomotor restlessness. During pregnancy, this condition may be misinterpreted as major depressive disorder or prodromal psychosis, leading to inappropriate antidepressant treatment and clinical worsening. This case report aims to highlight malignant anxiety syndrome as a distinct perinatal affective psychopathology and to emphasize the importance of syndrome-oriented and cautious psychopharmacological management during pregnancy.

**Case:** A 32-year-old married woman presented at the 26th week of gestation with a three-week history of severe anxiety, constant inner agitation, pronounced restlessness, and persistent insomnia. Depressive symptoms were present but secondary, while anxiety and hyperarousal were predominant. There was no personal or family history of psychotic or bipolar disorders. At an external center, sertraline was initiated at a dose of 25 mg/day due to suspected depressive symptoms. Within 5-7 days, the patient experienced marked worsening of agitation, increased inner tension, and further deterioration of sleep, without the emergence of psychotic symptoms. Following reassessment, the clinical picture was conceptualized as perinatal-onset malignant anxiety syndrome rather than depressive or psychotic pathology. Sertraline was discontinued, and pharmacological management was reorganized. Low-dose quetiapine was initiated at 25 mg/night and titrated to 50 mg/night within the first week. In addition, lorazepam 0.5 mg/day was prescribed for short-term use (10 days) to control acute anxiety symptoms. Selective serotonin reuptake inhibitor treatment was not reintroduced. Within the first week, a significant reduction in psychomotor agitation and improvement in sleep continuity were observed. By the third week, the persistent sense of alarm and inner tension had largely resolved. Psychiatric stability was maintained throughout the remainder of the pregnancy, and no significant adverse effects or obstetric complications related to psychiatric treatment were observed.

**Discussion:** This case illustrates malignant anxiety syndrome as a clinically distinct and underrecognized form of perinatal affective psychopathology. The rapid worsening of symptoms following antidepressant initiation underscores the risk of misdiagnosis and inappropriate pharmacological strategies in pregnant patients presenting with severe anxiety and agitation. Syndrome-based reassessment allowed for timely discontinuation of antidepressant therapy and targeted pharmacological intervention. Low-dose atypical antipsychotic treatment combined with short-term anxiolytic support provided effective stabilization without compromising maternal or fetal safety. Increased awareness of malignant anxiety syndrome during pregnancy may help clinicians optimize treatment strategies and prevent avoidable symptom exacerbation. Multidisciplinary followup is recommended.

Ref No: 6395

## A NEW HOPE FOR BIPOLAR DEPRESSIVE EPISODE: A CASE PRESENTATION OF BREXPIPAZOLE

Fadime Şimşek<sup>1</sup>, Yusuf Çokünlü<sup>1</sup>, Mustafa Enes Şimşek<sup>1</sup>

<sup>1</sup>Konya Numune Hospital

**Objective:** The treatment of depressive episodes in bipolar disorder constitutes a significant challenge for clinicians, especially in treatment-resistant patients. Brexpiprazole is an atypical antipsychotic that targets dysfunctions in the noradrenergic, serotonergic, and dopaminergic systems within brain circuits mediating agitation behaviors. Thus, brexpiprazole exerts effects on multiple receptors in the brain associated with agitation, aggression, impulsivity, arousal, and psychosis. In this case presentation, marked clinical improvement was observed after one month of brexpiprazole use in a patient with bipolar depression who had previously failed to respond to multiple different pharmacological treatments and was considered treatment-resistant.

**Case:** A 24-year-old male patient has been followed for five years with a diagnosis of bipolar disorder; he has previously experienced two manic and two depressive episodes and has been hospitalized twice in total. As his most recent treatment, he has been using lithuril 1200 mg/day (blood level 0.82), olanzapine 5 mg/day XR, and methylphenidate 27 mg/day. The patient had been monitored with depressive symptoms for the past two months; lamotrigine and aripiprazole were added as adjunctive treatments, but no benefit was achieved. An attempt was made to add sertraline 50 mg/day; however, it was discontinued in the third week of treatment due to symptoms such as increased spending and restlessness. In addition to depressive symptoms, the patient reported difficulty concentrating, struggling to study, and persistent sleepiness. Methylphenidate treatment was added for these symptoms; the patient benefited but complained of side effects such as palpitations and increased anxiety. The patient's HAMD depression score was measured as 26 and the adult ADHD score as 52. Brexpiprazole was initiated at 1 mg/day and the dose was gradually increased to 3 mg. One month after the initiation of brexpiprazole treatment and two weeks after increasing the dose to 3 mg, a marked improvement in depressive symptoms was observed; the HAMD score decreased to 12 and the adult ADHD score to 16.

**Discussion:** In this context, brexpiprazole, Brexpiprazole was first approved in the United States (USA) in 2015 for the treatment of schizophrenia in adults and as an adjunctive therapy to antidepressants in the treatment of major depressive disorder (MDD). As seen in the case presentation, brexpiprazole treatment provided marked clinical improvement in a patient with treatment-resistant bipolar depression. The decrease in the patient's HAMD depression score suggests that brexpiprazole may be a treatment option. These findings indicate that brexpiprazole should be further investigated as a potential alternative in the treatment of bipolar depression.

Ref No: 6436

### Unimodal-Transmodal Global Signal Correlation (GSCORR) as a Predictive Biomarker for ECT Response in Bipolar Depression

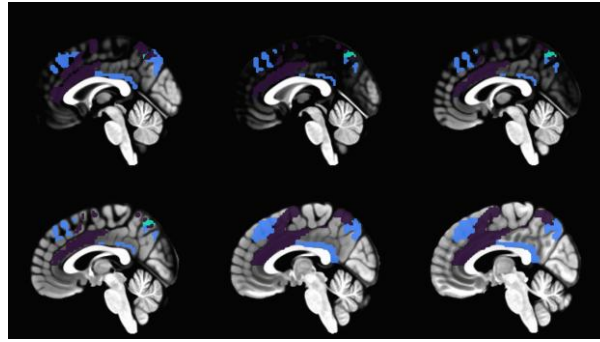
Kaan Keskin<sup>1</sup>, Ali Saffet Gonul<sup>1</sup>, Georg Northoff<sup>2</sup>, Mehmet Cagdas Eker<sup>1</sup><sup>1</sup>Ege University, Department of Psychiatry, Socat Lab, İzmir, Turkey<sup>2</sup>Mind, Brain Imaging and Neuroethics Research Unit, University of Ottawa, Ontario, Canada

**Background:** Electroconvulsive therapy (ECT) is an effective neuromodulation method for depressive episodes in bipolar disorder (BD), yet its neurobiological mechanisms of action remain not fully elucidated. Recent resting-state fMRI (rs-fMRI) studies suggest that the brain's functional connectivity is organized along a hierarchy from lower-order sensory (unimodal) regions to higher-order associative (transmodal) networks. To assess the integration of these networks, this study utilizes Global Signal Correlation (GSCORR), which measures the degree to which a specific voxel or region synchronizes with the brain's overall global activity. The objective of this study is to investigate the effects of ECT on the unimodal-transmodal functional organization and to evaluate whether GSCORR-based measurements can serve as predictive neurobiological biomarkers for clinical therapeutic response to ECT.

**Methods:** 30 patients with bipolar disorder depressive episodes scheduled for ECT were initially recruited. After dropouts and exclusions, pre-ECT baseline analyses were conducted with 26 patients, and longitudinal pre- and post-ECT comparative analyses were completed with 15 patients. Clinical and cognitive assessments were performed before and after treatment using the HAMD, MADRS, BDI, BAS, YMRS, and MOCA. Concurrently, 12-minute resting-state functional MRI data were acquired. GSCORR was calculated from the fMRI data to examine changes in unimodal and transmodal cortical systems and large-scale networks. Pre- to post-ECT changes in GSCORR values and their relationship with treatment response ( $\Delta$ HAMD) were evaluated using Hierarchical Bayesian Regression models (HBR).

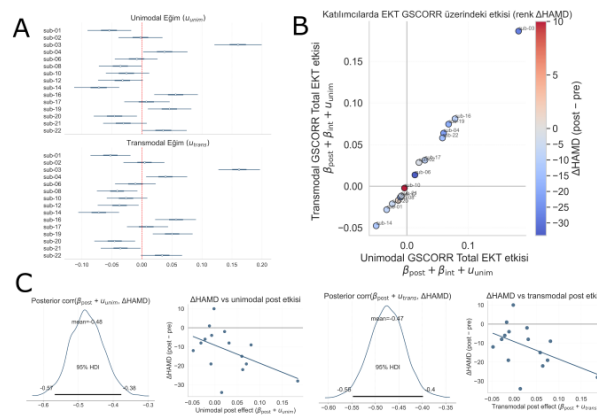
**Results:** Resting-state fMRI analyses revealed that pre-ECT GSCORR reductions in the unimodal cortex and a cluster located at the junction of the Frontoparietal Control Network (FPCN) and Cingulo-Opercular Network (CON) were inversely associated with depression severity. Post-ECT GSCORR increases were observed in both unimodal regions and the FPCN/CON cluster, and the magnitude of this increase showed a significant positive correlation with the reduction in depression severity ( $\Delta$ HAMD). Using the HBR model, it was shown that the relationship between unimodal GSCORR increase and HAMD decrease consistently existed at the individual level. However, it was found that clinical improvement observed after treatment in patients with higher pre-ECT GSCORR levels was significantly less than in patients with lower baseline GSCORR levels. Specifically, unimodal and transmodal cortical GSCORR increases were demonstrated in patients achieving remission ( $\text{HAMD} \leq 7$ ).

Figure 1



Voxel-Based Relationship Between Pre-ECT Global Signal Topography (GSCORR) and Depression Severity. A significant cluster was identified as a result of the voxel-based regression analysis (AFNI 3dtest++) examining the relationship between pre-ECT GSCORR maps and HAMD scores (42 voxels, , corrected ; MNI coordinates: ). This significant cluster, indicated in light blue (cyan) in the figure, is visualized with the Frontoparietal Control Network (Dark Blue) and Cingulo-Opercular Network (Maroon) templates, demonstrating the anatomical and functional overlap of the relevant region with these networks

Figure 2



Analysis of the Individual Effects of ECT on GSCORR and Depression Symptoms. (A) Slope parameters ( $\beta$ ) showing the post-ECT GSCORR change in Unimodal and Transmodal regions for each participant; demonstrating the individual variation in neurobiological response to treatment (increase in some patients, decrease in others). (B) The relationship between the total ECT effect in Unimodal and Transmodal regions and clinical response (HAMD); showing that patients with an increase in GSCORR values (blue dots) experienced a greater reduction in depression severity. (C) The posterior distribution of the negative correlation between the GSCORR increase and the drop in HAMD scores; confirming that neurobiological reorganization (increase in global connectivity) is associated with clinical recovery.

Table 1

|                                  | Mean   | SD    | HDI 3% | HDI 97% |
|----------------------------------|--------|-------|--------|---------|
| Intercept                        | 0,012  | 0,136 | -0,24  | 0,273   |
| $\beta_{\text{Unimodal GSCORR}}$ | -0,428 | 0,148 | -0,692 | -0,138  |
| $\beta_{\text{Sex}}$             | -0,052 | 0,199 | -0,433 | 0,312   |
| $\beta_{\text{Age}}$             | -0,144 | 0,13  | -0,405 | 0,089   |
| $\beta_{\text{Age}^2}$           | 0,076  | 0,141 | -0,192 | 0,336   |
| $\beta_{\text{AD}}$              | -0,233 | 0,144 | -0,503 | 0,037   |
| $\beta_{\text{Mood\_Stab}}$      | -0,198 | 0,137 | -0,455 | 0,058   |
| $\beta_{\text{CED}}$             | -0,353 | 0,135 | -0,601 | -0,099  |

## Investigation of the Relationship Between Pre-ECT Depression Severity (HAMD) and Unimodal GSCORR Controlling for Confounding Variables.

**Discussion:** These findings lead to the conclusion that unimodal GSCORR and its balance with transmodal regions could be a neurobiological marker reflecting both pre-ECT symptom severity and treatment response. The more pronounced unimodal-transmodal GSCORR increase in patients benefiting most from ECT supports the direct relationship between the GSCORR level and ECT treatment response.

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## Two Cases of Isotretinoin-Associated Mania with Psychotic Features: A Case Series and Clinical Implications

Aysegul Paksoy<sup>1</sup>, Beyza Yıldırım<sup>1</sup>, Rabia Avcı<sup>1</sup>, Rukiye Tekdemir<sup>1</sup><sup>1</sup>Selcuk University Faculty of Medicine, Department of Psychiatry, Mazhar Osman Mood Clinic

**Objective:** Isotretinoin (13-cis retinoic acid) is an effective systemic therapy for severe acne and has been associated in case reports and regulatory safety warnings with various psychiatric adverse events, including depression, suicidality, and—less commonly— affective episodes with psychotic features. Clustered case descriptions can help delineate phenotype, risk, and management considerations. Aim is to describe two cases of isotretinoin-associated mania with psychotic features, outline their clinical course and treatment response, and discuss screening/monitoring implications

**Case:** Case 1: A 23-year-old man with no personal or family psychiatric history began isotretinoin. On treatment day 12 he developed increased energy, pressured speech, reduced need for sleep, hypersexuality, and auditory hallucinations. Isotretinoin was discontinued and aripiprazole 7.5 mg/day was started. Manic and psychotic symptoms markedly improved within two weeks with restored functioning. Case 2: A 29-year-old woman with a remote single major depressive episode (fully remitted after one year of treatment) and a family history (cousin with bipolar disorder) started isotretinoin. After four weeks she developed irritability, markedly reduced sleep, racing thoughts, grandiose ideation, and intermittent auditory hallucinations. Isotretinoin was stopped; she received olanzapine (up to 15 mg/day) plus a short course of lithium carbonate (target serum 0.6–0.8 mmol/L). Symptoms remitted over three weeks and functional recovery followed; medications were tapered as clinically tolerated with ongoing outpatient follow-up. Written informed consent for publication was obtained from both patients

**Discussion:** Both cases demonstrate a clear temporal relationship between isotretinoin initiation and onset of manic/psychotic symptoms. Resolution followed drug discontinuation and short-term, standard acute mania management. Case 2's prior depressive episode and positive family history may have conferred vulnerability. Routine medical workups excluded neurological and metabolic causes. Isotretinoin can precipitate manic episodes with psychotic features even in patients without prior bipolar diagnosis. Clinicians prescribing isotretinoin should perform baseline psychiatric screening, counsel patients/families on early warning signs (e.g., sleep loss, agitation, mood lability, perceptual changes), and ensure rapid psychiatric access. Prompt discontinuation and timely psychiatric treatment were associated with favorable outcomes in these cases.