EPV0119

The role of neuronal network synchronization as a potential biomarker for bipolar disorder

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Introduction: Despite the potential for EEG abnormalities to provide insight into the neurophysiology of disease processes, studies that measure EEG power and coherence in bipolar disorder (BD) are rare.
Objectives: We investigated whether the resting electroencephalogram (EEG) in patients with BD showed altered synchronization
Methods: This was a cross-sectional, descriptive, and analytical case-control study, conducted with patients followed for BD in the psychiatry department "C" at the Hedi Chaker hospital in Sfax compared to healthy controls. Patients were assessed by the Hamilton Depression Scale (HDRS-17), and the Young Mania Scale (YMRS). EEG was also recorded at the service of the functional exploration at the Habib Bourguiba hospital in Sfax. Functional connectivity between pairs of EEG channels was measured for 4 frequency bands delta [0.5 – 3.5 Hz], theta [4 – 7.5 Hz], alpha [8 – 12.5 Hz], and beta [13 – 30 Hz]. Statistical analyses were carried out.
Results: Thirty subjects including 15 patients with BD and 15 age- and sex-matched controls were included. The mean age of bipolar and control was 36.07 ± 10.50 and 47.93 ± 15.61 years, respectively. The mean scores on the HDRS-17 and YMRS were 2.73±2.08, and 1.67±3.53 respectively.
Bipolar patients showed a decrease of connectivity in **the delta band**, and the decreases were greatest between the left frontal lobe and the right frontal, parietal and temporal lobes on the one hand and between the left temporal and right parietal lobes on the other hand. For **the theta band**, there was poor connectivity between the left frontal lobe and the right frontal and temporal lobes on the one hand and between the right central area and the left parietal, temporal and occipital lobes.
Conclusions: Bipolar patients had poorer intra and interhemispheric connectivity, which may be a key feature of BD.

Disclosure of Interest: None Declared

EPV0120

Effect of psychotherapy on peripheral BDNF concentration levels in patients with bipolar disorder. A systematic review

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Introduction: Psychotherapy is a treatment of proven efficacy in bipolar disorder (BD), but little is known about the molecular and cellular mechanisms that it produces in the brain. Brain-derived neurotrophic factor (BDNF) is thought to be important in neuroplasticity and could be increased by psychopharmaceuticals and psychotherapy in BD patients, but evidence in the literature is limited.
Objectives: To analyze the scientific studies that relate psychotherapies with the increase in BNDF levels in patients with BD.
Methods: Systematic review with PRISMA recommendations in PUBMED and Web of Science in July 2022. The search was performed using the combination of keywords "bipolar disorder" AND ("BDNF" OR "Brain Derived Neurotrophic Factor") AND "psychotherapy".
Results: With the initial search, 839 studies were obtained, finally 8 articles were analyzed. The available literature supports the role of psychotherapy in increasing BNDF in patients with BD.
Conclusions: BDNF could be a biomarker of therapeutic efficacy in BD. Psychotherapy increases BDNF levels. No differences were found between the different types of psychotherapies. More studies are needed to determine the mechanisms by which psychotherapies produce molecular changes in the brain.

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EPV0121

Comparison of prophylactic response to lithium and valproate in patients with Early Onset Bipolar Disorder

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Introduction: The clinical presentation and the course and outcome in Early-Onset Bipolar Disorder (EOBD) patients are found to be atypical compared to adult bipolar patients. Lithium and valproate are among the first-line maintenance treatments for bipolar disorder. Because of atypical features, in many patients, valproate is preferred over lithium. However, recent studies have shown that valproate results in more neurocognitive deficits than lithium. There have been very few Indian studies that assessed the prophylactic response to mood stabilizers in patients with early-onset bipolar disorder. BDNF has an important role in neurodevelopment, and it is shown that peripheral levels of BDNF are reduced in early-onset bipolar disorder.
Objectives: To compare the effectiveness of lithium and valproate in attenuating manic, depressive, and mixed episodes in early-onset bipolar disorder.
Methods: This study was an observational (cross-sectional analytical) study conducted in the Affective Disorder clinic of a tertiary care hospital. We have recruited a total of 50 adult patients with a history of early-onset, i.e., onset at <18 years of age and in remission. Patients were divided into two groups based on the mood stabilizer drug they were receiving. There were 25 patients each in the lithium and valproate group. Montreal Cognitive Assessment (MoCA) scale was applied to assess cognitive functions.
Results: The overall functioning was found to be significantly better in the patients receiving lithium than valproate, which was found by higher scores on the Global Assessment of Functioning (GAF) scale.We have found a statistically significant negative correlation