## 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 $36.07 \pm 10.50$ and $47.93 \pm 15.61$ years, respectively. The mean scores on the HDRS-17 and YMRS were $2.73\pm2.08$, and $1.67\pm3.53$ 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.

**Disclosure of Interest:** None Declared

## 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

between the number of episodes before starting a mood stabilizer and the time to recurrence after starting a mood stabilizer. However, the former cannot predict the latter. The age, educational status of the patient, total duration of illness and number of episodes before starting mood stabilizer correlated significantly with the MoCA score. Of all, the educational status could also predict the patient's performance on the MoCA scale.

**Conclusions:** There were no significant differences between lithium and valproate in attenuating further episodes, the frequency of neurocognitive deficits and other adverse effects. Both drugs were equally effective and tolerable. The severity of illness was more in valproate-treated patients, and overall functioning was better in lithium-treated patients. BDNF levels did not correlate with neurocognitive deficits significantly. Future studies comprehensively assessing neurocognitive measures with a larger sample size in the early-onset bipolar disorder population would shed more light on the role of biomarkers in cognition in subjects with early-onset bipolar disorder.

**Disclosure of Interest:** None Declared

## EPV0122

### Secondary Mania in Older Adults: a case report and review of literature

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**Introduction:** Although mania is commonly associated with bipolar disorder, it can have many etiologies. Thus, "primary mania" results from bipolar disorder, whereas "secondary mania" results from pharmacological, metabolic, or neurologic causes. Older adults are at risk for secondary mania because of increased medical comorbidities and neurological changes. In one retrospective study of 50 patients with mania who were older than 65 years, it was the first manic episode for 28% of the patients and 71% had a comorbid neurological disorder.

**Objectives:** The etiology of mania is important because although acute symptomatic treatment of both primary and secondary mania may be similar, appropriate treatment of secondary mania includes addressing the cause. We present here two case histories of secondary mania in older adults, discuss their presentations and differential diagnosis in turn, and discuss treatment.

**Methods:** We will present a clinical case of a patient. Ms. A, a 63-year-old divorced woman with no prior medical or psychiatric history, was seen for an acute manic episode with mixed features. She was in her usual state of health until 2 weeks before admission, when she presented with a status epilepticus requiring a one-week hospitalization in the neurology département and treated by Carbamazepine. She then developed an abnormally excited and labile mood, motor excitability accompanied by rapid thoughts, with a total loss of desire and pleasure and thoughts of death.

**Results:** In our study, the patient presented a manic episode with mixed characteristics secondary to a status epilepticus.

The patient was treated both somatically and psychologically, and the evolution was positive. The patient was stabilised after being put on an antiepileptic drug associated with an antipsychotic drug.

In our study, the patient presented with a manic attack with mixed characteristics secondary to a status epilepticus. The patient was

treated both somatically and psychologically, and the evolution was favourable. The patient was stabilised after being put on an antiepileptic drug associated with an antipsychotic drug.

**Conclusions:** Late onset psychiatric disorders often represent a challenge for the psychiatrists as far as the diagnosis and management issues are concerned. The elderly patients have generally been reported to have associated medical, especially neurological illnesses and are also prone to side effects of various psychotropic medications.

**Disclosure of Interest:** None Declared

## EPV0125

### The analysis of organic diseases in elderly patients diagnosed with bipolar disorders- A retrospective study

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**Introduction:** Both organic and psychiatric comorbidities are frequently detected in bipolar disorders (BD) and this phenomenon has a significant impact on case management in these patients. The most reported general medical conditions in patients with BD are migraine, thyroid illness, obesity, diabetes mellitus, and cardiovascular disease. The screening for comorbidities detection in BD patients is important from multiple perspectives, including the need to construct an adequate therapeutic plan, the need to increase treatment adherence, and to improve these patients' quality of life.

**Objectives:** To assess the prevalence of comorbid organic diseases in a clinical sample of BD patients.

**Methods:** A chart- and register-based analysis of BD patients (i.e., type I and II BD) evaluated in our department during a period of three years (January 2019- January 2022) was conducted in order to detect the prevalence rate of organic diseases. All patients aged over 65 years were evaluated either for acute mood episodes or presented to their treating psychiatrists for follow-up visits.

**Results:** A number of 87 patients were included in this analysis, 45 male and 42 female, with a mean age of 70.5 years. The most frequently detected organic comorbidities were metabolic disorders (obesity, dyslipidemia, diabetes mellitus- 36.8%), cardiovascular (arterial hypertension, arrhythmias, myocardial ischemia, deep/superficial venous thrombosis- 26.4%), digestive system-related (hepatic, gastric, intestinal diseases- 21.8%), neurologic (i.e., stroke, migraine, Parkinson's disease) (18.3%), endocrine (mainly thyroid diseases) (17.2%), and other (19.5%). A relatively high rate of organic diseases (38%) were newly diagnosed (in the last 3 months), suggesting there is a certain need to screen for organic pathology in this population, but most of the BD patients presented a long history of investigated and treated comorbid conditions.

**Conclusions:** Organic diseases are very common in elderly BD patients. Even where no history of somatic conditions exists, comprehensive investigations are granted in order to detect such health problems with important prognostic impact.

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