

EPV0105

Resting-state Fronto-limbic Connectivity in Unipolar Depressive Patients as a Predictor for Sporadic Conversion to (Hypo)mania

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Introduction: Patients with a bipolar disorder (BD) may experience one or several episodes of major depression before transitioning into a manic phase. Given that treatment with common antidepressants may exacerbate symptoms of mania in patients with BD, initial diagnosis of major depressive disorder (MDD) is a significant issue affecting BD patients. Currently, a family history of BD is used as an early identifier for BD, but as genetic factors associated with BD confer susceptibility to a wide range of psychiatric illnesses, this approach lacks specificity. Thus, there is a pressing need for a biomarker which specifically predicts development of bipolar symptoms in patients with MDD, rather than a trait vulnerability to psychiatric disorder

Objectives: The aim of this study is to assess alterations in fronto-limbic function that exist prior to the manifestation of the first manic episode in BD patients without familial predisposition for BD.

Methods: To identify a biomarker for conversion to BD we performed a study in a naturalistic sample of MDD patients without a familial risk for BD, which were followed for 9 years. We used a seed-based functional connectivity analysis to assess differences in resting-state fronto-limbic connectivity between MDD patients who converted to BD during the follow-up period ($n = 11$), and non-converting MDD patients ($n = 56$).

Results: Clusters of significantly reduced functional connectivity were found in the fronto-limbic network of prospective converters relative to non-converters.

Conclusions: Findings suggest that alterations of fronto-limbic functional connectivity during episodes of depression predate and associate with conversion to BD later in life, in the absence of familial risk. These fronto-limbic functional connectivity disturbances may be of interest for diagnosing early-stage BD, and may offer insight in the mechanisms that drive conversion in the absence of familial predisposition. Findings from this study need to be verified through large-scale longitudinal imaging studies in naturalistic cohorts of MDD patients.

Disclosure of Interest: None Declared

EPV0106

Sociodemographic characteristics of patients diagnosed with bipolar disorder manic episode hospitalized in a psychiatry clinic

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Introduction: Bipolar disorder is a chronic mental illness that progresses with recurrent episodes and can cause serious loss of functionality. Sociodemographic characteristics have importance on the course of the disease.

Objectives: In this study, sociodemographic data such as age, gender, educational status, job, and family history of patients with bipolar disorder manic episode who were followed up and treated in the psychiatry ward of our hospital were recorded.

Methods: Our study included 50 patients diagnosed with bipolar disorder manic episode according to DSM-5 in the psychiatry service of Atatürk University Hospital and 50 healthy volunteers who had not applied to psychiatry before. A 16-item sociodemographic chart in which age, gender, marital status, lifestyle, number of marriages, number of children, years of education, job, monthly income, maternal and paternal survival status, family history of psychiatric illness, family history of bipolar disorder, smoking, alcohol and substance use were questioned. The data form was applied to the patients and healthy volunteers.

Results: After the statistical analysis between the groups, a significant difference was found in terms of lifestyle ($p < 0.001$), job status ($p = 0.01$), family history ($p < 0.01$) and substance use history ($p = 0.04$).

Conclusions: The rate of psychiatric illness in the families of individuals diagnosed with bipolar disorder increases significantly compared to the normal population, and the data of our study are in line with the literature in this respect. It is known that conditions such as lower employment and interruption of working life are common in patients with bipolar disorder due to diseases such as loss of functionality and pharmacotherapy side effects. In our study, similar to the literature, the employment status was found to be significantly lower in the BD group compared to the healthy controls. In our study, no significant difference was found between the groups in terms of smoking and alcohol use, while other substance use was found to be significantly higher in the bipolar disorder group. Since factors such as sociocultural structure, education, geographical conditions, religious belief may affect smoking, alcohol and substance use; multicenter studies with larger samples are needed in order to more clearly reveal the rates associated with bipolar disorder and other psychiatric conditions.

Disclosure of Interest: None Declared

EPV0107

Lithium intoxication due to furosemide interaction – a case report

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Introduction: Lithium has been used for the management of psychiatric illnesses over the years and it continues to be the first-line mood stabilizer used in treatment and prevention of bipolar disorder. Due to its narrow therapeutic index, other prescribed medications can increase lithium levels and potentiate its toxic effects. Among the most described drugs, non-steroid anti-inflammatory drugs and diuretics (mainly thiazides and loop diuretics) are the most commonly implicated. Risk factors for

developing lithium toxicity include old age, polypharmacy, renal impairment, hyponatremic and hypovolemic conditions. Although there is interindividual susceptibility, older patients are at particularly higher risk.

Objectives: To summarize the latest literature about this field and to present a case report as a basis for discussion.

Methods: A brief review of the latest literature was performed, using *PubMed* and the keywords “lithium” and “acute renal injury”. Also, a case report about a 73 year-old man who suffer from lithium intoxication due to lithium-furosemide interaction is presented.

Results: In the presented case, Mr. F, 73 years old, independent for activities of daily living, was admitted to the Internal Medicine ward due to acute renal injury and lithium intoxication. Initially he was non-collaborative, sleepy, disoriented in all references and speechless. The creatinine was 1.28 mg/dL, urea 63 mg/dL, unspecific leucocytosis 17000/mm³, C-Reactive Protein 8 mg/dL, lithium 2.22 mEq/L. The psychiatrist was called to approach the psychiatric status, but as the patient awareness was impaired, the mental state examination was not possible. The patient’s daughter was interviewed. The patient had bipolar disorder (BD) type 1 and was diagnosed with mild cognitive impairment (MCI) a year ago. He had been stable for BD and MCI until the last month. He began to present nocturia, so he went to a urologist who prescribed him furosemide 40 mg daily for benign prostatic hyperplasia (BPH). Since that moment, he started being confused and progressively went to the state that was previously described at the admission of internment. Furosemide, quetiapine and lithium were stopped. He got better, to his previous state, and then started quetiapine 200 mg/day and tansulosine 0.4 mg/day.

Conclusions: Initiating diuretics in patients under lithium should be carefully considered and lithium blood levels must be monitored more regularly when new drugs are prescribed. Other medications must be regarded as alternatives but, if it is not possible, they should be used in the lowest dose and shortest duration as possible. With this case report, we highlight the importance of considering patients as a whole, taking both their physical and mental well-being into account. Healthcare professionals are invited to coordinate their efforts to deliver the best standard of care.

Disclosure of Interest: None Declared

EPV0108

Assessment of executive functions through a virtual reality task in euthymic patients with bipolar disorder and influence in psychosocial functioning

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Introduction: Previous research has shown that neurocognitive deficits, especially deficits in executive functions, may persist during euthymia in in patients with bipolar disorder (BD) and that those are associated with an impairment of psychosocial functioning. The assessment of executive functions (EFs) is normally carried

out using laboratory tests. Novel methodologies such as virtual reality (VR) allow the creation of immersive environments, to evaluate executive performance with greater potential for ecological validity than evaluations with standard tasks.

Objectives: The objectives of this project are to evaluate executive performance in euthymic patients with BD with a novel virtual reality task compared to standard computerized tasks, and to find predictors of functioning associated with cognitive performance.

Methods: This is a cross sectional study in which 46 euthymic patients with BD treated at La Fe University and Polytechnic Hospital were assessed with a battery of standard computerized tasks (ST) (TMT/Stroop,/Go-No-Go/TOL/DOT) and with the Cooking Task virtual reality task. The Cooking Task presents 4 tasks of increasing difficulty in which you must cook food in a specific time. It records total time to complete the task, whether food is cooled or burned, the simultaneous use of two fires, the proper use of seasonings and the time to set the table.

Functioning was assessed with the Functioning Assessment Short Test (FAST) that evaluates the overall functioning of patients with a mental illness in 6 subscales.

Correlation analyses between cognitive performance variables and clinical variables were done. Multiple linear regression was performed with the FAST score as a dependent variable and cognitive performance variables and relevant clinical variables to executive functioning (months of euthymia, age, and number of total episodes) were included as independent variables.

Results: A worse psychosocial functioning was significantly associated with a worse performance in standard tasks (TMTA, TMTB, STROOP, and TOL) and cooking task (total time spent on task 2, burning time and total time spent on task 3, and total time spent on task 4). In the regression analysis, the correct simultaneous use of the two fires was the best predictor of a better psychosocial functioning in BD patient. This implies the preserved ability of planning and performing dual tasks.

Conclusions: Our findings suggest that euthymic patients with BD present deficits in executive functions related with a worse psychosocial functioning. Among the tasks, the cooking task may have a greater sensitivity than standards task to predict real functioning. This in an opportunity to design virtual applications for diagnostic and therapeutic purposes.

Disclosure of Interest: None Declared

EPV0109

Contribution of an integrative approach to the oral rehabilitation of a bipolar patient

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Introduction: Ironically, the correlation between systemic pathologies and caries/ periodontal diseases is commonly accepted by the scientific and medical community, but the fact that severe mental illnesses may affect one’s physical health, and thus lead to poor oral health is less well-known.

Objectives: This clinical case report’s aim is to raise awareness among medical staff about the relevance of appropriate management of patients with severe mental illnesses in terms of dental care.