EPP0284
Gender differences in the association of dementia symptoms severity and hospital anxiety

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Introduction: Symptoms of anxiety can worsen cognitive decline in people with dementia, and symptoms of dementia and fears of further cognitive decline can cause anxiety. Advanced dementia is not necessarily associated with a loss of emotion, which means that people may still experience anxiety, but their ability to cope in a healthy way is reduced. The problem is exacerbated by the fact that hospital care alone can contribute to the severity of anxiety symptoms due to change in routine of daily activities, unfamiliar surroundings, uncertainty about health status, prognosis and various medical procedures. There are differences between women and men in the prevalence, course and manifestation of both dementia and anxiety disorders.
Objectives: To examine whether there are differences between women and men in the association of hospital anxiety with eight symptoms of dementia: difficulties with memory, orientation, judgement, problem solving, fulfilling social obligations, daily activities at home and with hobbies, or personal care, in patients with mild to moderate dementia.
Methods: A cross-sectional study was conducted at Sveti Ivan Psychiatric Clinic in Zagreb in June 2023. The target population were hospitalised patients diagnosed with dementia, both genderes, aged 60-90 years, without psychotic disorder. Anxiety during hospitalisation was measured using the anxiety subscale of the Hospital Anxiety and Depression Scale (HADS-A), and the severity of dementia symptoms was measured using the Dementia Assessment Instrument (CDR). The hypothesis was tested using Wald test of differences between women and men in unstandardised linear regression coefficients of the HADS-A on individual dementia symptoms, after adjustment for age, education, presence of a married or stable non-marital partner and duration of current hospitalisation.
Results: We enrolled 65 women and 35 men of comparable age. There were significant gender-related differences in the association between hospital anxiety and difficulties with judgement ($P = 0.01$), fulfilling social obligations ($P < 0.001$), difficulties with home and hobbies ($P = 0.02$), and personal care ($P = 0.00$). In women, more pronounced difficulties with judgement and with home and hobbies were associated with higher anxiety, and in men the presence of these two symptoms of dementia was associated with lower anxiety. Difficulties with fulfilling social obligations are associated with lower anxiety in women and higher anxiety in men. Difficulties with personal care were associated with lower anxiety in both genders, but this effect was stronger in men.
Conclusions: There are differences between women and men in the association between anxiety during hospital treatment and the severity of individual dementia symptoms. These differences are present in difficulties with judgement, fulfilling social obligations, home, hobbies and personal care.

Disclosure of Interest: None Declared

Bipolar Disorders

EPP0285
Methylomic signature of lithium response in bipolar disorder

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Introduction: Bipolar disorder (BD) is a chronic and severe psychiatric disorder, characterized by the alternance of episodes of (hypo)-mania and major depression. Lithium (Li) is the first-line treatment for BD but unfortunately response to Li is highly variable: after at least two consecutive years of treatment, only a fraction of patients receiving Li will display significant improvement in the frequency and/or severity of mood recurrences. This interindividual variability of treatment response is difficult to predict, in the bipolar disorder context. This could be determined by genetic factors still misidentified by available genetic studies. In addition, no clinical or biological markers are available to reliably define eligibility criteria for a lithium treatment in bipolar disorder. A consequence is a long process of therapeutic trials (18-24 months) to phenotype Li response, delaying the stabilization.
Objectives: To identify objective biomarkers of the prophylactic response to lithium in order to improve patient care and propose therapeutic alternatives to patients who do not respond to lithium.
Methods: Using a genome-wide methylomic approach, and then logistic regressions incorporating as covariates the different types of treatments, we were able to identify differentially methylated regions (DMRs) whose methylation difference between responders and non-responders was not impacted by co-prescribed treatments. Then, we used Methylation Specific High-Resolution Melting (MS-HRM), a PCR based method than can be implemented in any medical laboratory at low cost and with minimal equipment, to estimate methylation proportion of 9 DMRs in 61 samples of bipolar patients.
Results: In the sample of 61 individuals with BD, the 9 MS-HRM-measured DMRs combined with clinical variables (age, sex, cigarette smoking status, lifetime number of hospitalizations, age at onset of BD, polarity at onset, psychotic symptoms at onset, family history of BD, lifetime alcohol/cannabis misuse, panic disorders, Li prescribed as the first mood stabilizer (vs 2nd or 3rd choice)) correctly classified 83,6% of individuals as good or non-responders (n=61, prophylactic response phenotype defined using the "Alda" scale). Excluding the partial responders, the percentage of correctly classified individuals is as high as 100% (n=43, 18 non responders and 25 responders). The AUC are respectively AUC=0.913 and AUC=1.0.
Conclusions: The MS-HMR method allow to identify the response status of individuals with BD with 9 DMR. These DMRs

discriminate good from non-responders and can be used in combination with clinical variables.

Disclosure of Interest: None Declared

EPP0287

Decreased telomere length in a subgroup of young individuals with bipolar disorders: replication in the FACE-BD cohort and association with the shelterin component POT1

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Introduction: A 10-15 years decrease in life expectancy has been observed in individuals with bipolar disorder (BD) and has been associated with premature cellular aging, but mechanisms involved remain unclear. Our team recently identified a subgroup of young individuals with prematurely shortened telomere length (TL).
Objectives: The aims of the present study were to replicate this observation in a larger sample and to analyze the expression levels of genes associated with age or TL in a subsample of these individuals.
Methods: TL was measured by qPCR using peripheral blood DNA from 542 individuals with BD. Clustering analyzes were performed with age and TL as classification variables to identify similar groups.
Gene expression of 29 genes, including 20 associated with age and 9 with TL, was analyzed by RT-qPCR using peripheral blood RNA in a subgroup of 129 individuals. Gene expressions were compared between groups obtained from the previous clustering analyzes by Kruskal-Wallis and Mann-Whitney tests.
Results: Clustering analyzes identified 3 subgroups and replicated the clustering previously described: a subgroup of aged individuals with a low TL (mean age : 51.73 years ; mean TL : 2), a subgroup of young individuals with a high TL (mean age : 29.02 years ; mean TL : 4.36) and a subgroup of young individuals but with a low TL (mean age : 29.64 years ; mean TL : 1.96). None of the tested clinical variables were significantly associated with this subgroup.
Furthermore, gene expression level analyzes showed that only *POT1* expression was different between the two subgroups of young individuals, with a downregulation of *POT1* expression in the subgroup with a lower TL level. POT1 is a protein involved in the maintenance of TL. POT1 binds to another protein TPP1 allowing the recruitment of telomerase, the enzyme which extends TL. Our hypothesis is that in the subgroup presenting a lower *POT1* expression, the POT1-TPP1 complex cannot form and thus prevents telomerase recruitment and TL elongation.
Conclusions: This study confirms, on a larger sample, the existence of a subgroup of young individuals with BD presenting accelerated cellular aging. The observed decrease of *POT1* expression level suggests a newly described cellular mechanism in individuals with BD, that may contribute to telomere shortening.

Disclosure of Interest: None Declared

EPP0288

Telehealth Treatment of Patients with Bipolar Depression during the COVID-19 Pandemic: Comparative Safety, Patient Satisfaction, and Effectiveness to Prepandemic In-person Treatment

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Introduction: The COVID-19 pandemic prompted a transition from in-person to telehealth psychiatric treatment. There are no studies of partial hospital telehealth treatment for bipolar disorder.
Objectives: In the present report from the Rhode Island Methods to Improve Diagnostic Assessment and Services (MIDAS) project, we compared the effectiveness of partial hospital treatment of patients with bipolar depression treated virtually versus in-person.
Methods: Outcome was compared in 76 patients with bipolar depression who were treated virtually from April, 2020 to December, 2022 to 130 patients who were treated from May, 2017 to January 2020. The patients completed self-administered measures of patient satisfaction, symptoms, coping ability, functioning, and general well-being.