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# Overnight affective dynamics and sleep characteristics as predictors of depression and its development

Minaeva, O.; George, S.; Kuranova, Anna; Wichers, M.; Riese, H.; Booij, Sanne

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**Introduction:** There is no doubt that the symptoms of depression is the loss of appetite and loss the ability to taste food. However there is unanswered question how depression disorder impact different preferences of food tastes, which was sought to be explored in this study.

**Objectives:** were to evaluate changes in characteristics of food tastes in patients with depressive disorder and healthy controls; and to find the association with clinical expression of depressive severity.

**Methods:** 74 patients with depressive disorder (according DSM-V, MINI 6.0.0) and 38 healthy controls, 18 to 55 age old, were included into this study. The subjects were interviewed using the socio-demographic and the food sensory questionnaires. The severity of depression was rated using Montgomery-Asberg Depression Rating Scale (MADRS).

**Results:** There were significantly more patients with depressive disorder in comparison to healthy controls preferred non-spicy taste of food (66.2 % vs. 47.4 % respectively, p=0.025) and non-sour taste of food (66.2% vs 50.0 %, respectively, p=0.015), without significant differences in preference of salty and sweet food tastes. Among study patients with depressive disorder, the majority (71.6%) suffered from moderate severe depression, 23 % - severe depression and 5.4 % had mild severity depression. The preferences of tastes of the food (sour, sweet, salty, spicy) were independent of the severity of the depressive disorder (p>0.05)

**Conclusions:** Patients with depressive disorder prefer non-spicy and non-sour food tastes, without differences in salty and sweet foods; it have found independent of the severity of the depressive disorder.

Keywords: depression; taste; food

### EPP0517

## Emotional blunting and cognitive profile in elderly depressed patients in treatment with vortioxetine

F. Franza<sup>1</sup>\*, B. Solomita<sup>2</sup>, A. Colucci<sup>3</sup>, M. Perito<sup>3</sup>, F. Pellegrino<sup>4</sup>, G. Del Buono<sup>5</sup> and G. Tavormina<sup>6</sup>

 <sup>1</sup>Sir, Psychiatric Rehabilitation Centre Villa dei Pini, Avellino, Italy;
 <sup>2</sup>Psychiatry, Psychiatric Rehabilitation Centre Villa dei Pini, Avellino, Italy;
 <sup>3</sup>Neuroscience, Neamente Association, Mercogliano, Italy;
 <sup>4</sup>Mental Health Department, UOSM Nocera Inferiore, Nocera Inferiore, Italy;
 <sup>5</sup>Division Psychiatry, University Salerno, Salerno, Italy and <sup>6</sup>Psychiatric Studies Centre, CenStuPsi, Provaglio d'Iseo, Italy
 \*Corresponding author.

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**Introduction:** Antidepressants in older people have experienced their increase in medical prescriptions in recent decades whit comorbidity with other pathologies and drug polytherapies. With the use of antidepressants, can be observed side and unwanted effects (e.g. emotional blunting). Vortioxetine is a new antidepressant agent which promises fewer side effects.

**Objectives:** To evaluate the clinical efficacy, safety, side effects (e.g emotional blunting) and cognitive profile

**Methods:** 45 elderly patients affected by MDD (DSM-5) were recruited in our observational study. All patients were treated with vortioxetine for 12 months. Physiological and pathological parameters were collected at baseline (T0), after 3 months (T1), 6 months (T2); 12 months (T3). All patients were administered the following scales: GDS; MMSE; QLi; ODQ. The statistical data were processed with EZAnalyze. **Results:** 33.33% of patients had a score in the "unlikely depression" GDS group. The ANOVA ODQ "Total" results indicate that at least two of the repeated measures differ significantly. Data of the "antidepressant as cause" dimension are interesting [T0 vs T3 (P-Unadjusted .000; P-Bonferroni .000; T-value 5.687. MMSE scores are indicative of one small but not significant difference. Mean QLIndex scores did not show statistically significant changes, but are indicative of positive changes from the baseline score

**Conclusions:** Vortioxetine resulted in partial reduction of depression. There was a moderate non-statistically significant increase in body weight, glycidic and lipid profiles. Overall data highlight the importance and role that vortioxetine can have in the management of depressive symptoms in elderly subjects. The handling, effectiveness and reduced side effects of the molecule are emphasized.

**Keywords:** Depression; EMOTIONAL BLUNTING; Vortioxetine; Pharmacology

### **EPP0518**

### Childhood trauma influences the age of onset and severity of major depressive disorder via brain function

S. Chen\* and Y. Yuan

Department Of Psychosomatics And Psychiatry, ZhongDa Hospital, School of Medicine, Southeast University, Nanjing, China

\*Corresponding author.

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**Introduction:** Associations between childhood trauma (CT), social support (SS), brain functions and major depressive disorder (MDD) is unknown.

**Objectives:** This study aimed to investigate whether brain functions mediated associations between CT, SS, and MDD.

**Methods:** 164 MDD and 98 healthy controls (HC) were recruited and measured by HAMD-24 and HAMA. Some completed CT questionnaire (CTQ) and social support rating scale (SSRS). We examined amplitude of low-frequency fluctuation (ALFF) between the two groups and correlations between HAMD-24, HAMA and ALFF in MDD. Then, the peak voxels of the ALFF changed regions were used as seeds to analyze whole-brain functional connectivity (FC). Next, correlations between FC and clinical variables of MDD were performed. Last, mediation analysis was used to further determine whether ALFF or FC could mediate the associations between CT, SS, and different clinical variables in MDD patients.

**Results:** Compared to HC, MDD showed decreased ALFF in right posterior cingulate (PCC\_R), left postcentral gyrus, right precentral gyrus, and left thalamus (THA\_L), but increased ALFF in right medial frontal gyrus, left subgenual anterior cingulate, and left middle occipital gyrus as well as decreased FC in bilateral PCC and THA\_R. HAMD-24 had negative correlation with ALFF of THA\_L, while positive with sexual abuse (SA) score in MDD. Mediation analysis revealed that FC of PCC\_R mediated association between SA and baseline HAMD-24, and itself or together with SS mediated association between CT and onset age of MDD.

**Conclusions:** CT may influence the depression severity and onset age of MDD by moderating FC of PCC\_R only or together with SS.

**Keywords:** major depressive disorder; childhood trauma; brain function; social support

### **EPP0519**

## Overnight affective dynamics and sleep characteristics as predictors of depression and its development

O. Minaeva\*, S. George, A. Kuranova, M. Wichers, H. Riese and S. Booij

Department Of Psychiatry, University of Groningen, University Medical Center Groningen, Groningen, Netherlands \*Corresponding author. doi: 10.1192/j.eurpsy.2021.877

**Introduction:** Greater affective inertia during the day (higher carry-over effects of prior affect to the current moment) is associated with depression and its development. However, the role of overnight affective inertia (from evening to morning) in depression, and the role of sleep therein, has been scarcely studied.

**Objectives:** We examined i) the difference in overnight inertia for positive (PA) and negative affect (NA) between individuals with past depression, current depression, and no depression; ii) how sleep duration and quality influence overnight affective inertia in these groups, and iii) whether overnight affective inertia predicts depression development.

**Methods:** We used data of 579 women from the East-Flanders Prospective Twin Survey. First, individuals with past (n=82), current (n=26), and no depression (n=471) at baseline were examined, and then individuals who did (n=58) and did not (n=319) develop depression at 12-months follow-up. Affect was assessed 10 times a day for 5 days. Sleep was assessed with sleep diaries. Affective inertia was operationalized as the influence of affect<sub>t-1</sub> on affect<sub>t</sub>. Linear mixed-effect models were used to test the hypotheses.

**Results:** Overnight affective inertia was not associated with depression, neither was it differently associated with sleep characteristics in the depression groups. However, sleep characteristics were more negatively associated with morning NA in both depression groups compared to the non-depressed group. Overnight affective inertia did not predict the development of depression at follow-up.

**Conclusions:** Depression and sleep characteristics might be more related to mean affect levels rather than to more complex emotion dynamics measures. Replication of these findings with longer timeseries is needed.

**Keywords:** Affective inertia; Depression; sleep; Experience Sampling Method

### **EPP0520**

### Study of cognitive impairment in depression

R. Sharma<sup>1\*</sup>, J. Khattri<sup>2</sup> and P. Thapa<sup>2</sup>

<sup>1</sup>Psychiatry, National medical college, kathmandu, Nepal and <sup>2</sup>Psychiatry, Manipal College of Medical Sciences, Pokhara, Nepal \*Corresponding author. doi: 10.1192/j.eurpsy.2021.878

**Introduction:** Cognitive impairment is frequently observed in patients suffering from depression. Cognitive dysfunction play a critical role in increasing the individual's vulnerability for the first onset, maintenance and future recurrence of depressive episodes. **Objectives:** The objectiv was to assess the cognitive impairment in patient with depressive episode.

Methods: A cross sectional, hospital based study was conducted among 100 patients with depressive episodes diagnosed by

International Classification of Diseases - 10 visiting outpatient and inpatient in Department of Psychiatry of Manipal Teaching Hospital, Pokhara, Nepal. The subjects were interviewed with Beck's depression inventory, Perceived deficient questionnaire, Frontal assessment battery, Trail making test A and B and Forward and Backward Digit Span test. For the assessment of correlates, regression analyses were done using SPSS v 20.0.

**Results:** The mean age of the participants was 32.47 years (SD $\pm$ 12.25), majority were female, married, Hindu and from urban population. Higher number of respondent were student. Most of them were educated till intermediate level and belonged to middle socioeconomic class family. Different domain of cognitive function according to severity of depression was found to be statistically significant (p<0.05). This study also found that age, sex, education, medication use and Becks depression inventory score predicted the cognitive function.

**Conclusions:** Cognitive impairment is not ucommon among patient with depressive episodes. The impairment is not only seen in severe cases but also in mild to moderate cases. The assessment of cognitive deficits should be the regular part of the assessment in depressive patients.

Keywords: Depression; cognitive functions

### EPP0521

### Inaugural seizure in a patient submitted to electroconvulsive therapy and anti-psychotic treatment: Who's the culprit?

I. Figueiredo<sup>1</sup>, A.C. Rodrigues<sup>2\*</sup>, I. Pereira<sup>3</sup>, C. Oliveira<sup>1</sup> and A. Bento<sup>1</sup>

<sup>1</sup>Clínica 3, Centro Hospitalar Psiquiátrico de Lisboa, Lisboa, Portugal;
<sup>2</sup>Unidade De Reabilitação, Centro Hospitalar Psiquiátrico de Lisboa, Lisboa, Portugal and <sup>3</sup>Clínica 4 - Unidade De Alcoologia E Novas Dependências, Centro Hospitalar Psiquiátrico de Lisboa, Lisboa, Portugal

\*Corresponding author.

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**Introduction:** Electroconvulsive Therapy (ECT) is one of the most effective treatments for Depressive Disorder. Although its safety and tolerability have been throughout the years, it still holds common mild and rarely persistent side effects.

**Objectives:** The aim is to review some of the most recent data on the connection between inaugural seizures in psychiatric patients being submitted to ECT for treatment of Major Depressive Disorder, while also discussing the possible contribution of the concomitant use of clozapine and clomipramine.

**Methods:** The authors present a case report of an episode of an inaugural seizure in a patient submitted to ECT, with concomitant use of clozapine and clomipramine. A search on Pubmed and Clinicalkey was performed, from which the relevant publications were selected and reviewed.

**Results:** The authors present a 62 year old woman who developed an inaugural generalized tonic-clonic seizure after being submitted to ECT for treatment of Recurrent Major Depressive Disorder (RMDD), while also carrying out clozapine and clomipramine dosage reduction, with the purpose of discontinuation. The patient had no history of previous seizures, nor were there relevant findings in the patient's neurological examination, blood work, brain CT or EEG.