

EPP0363

Alteration of cortical functional networks in mood disorders with resting-state electroencephalography

S. Shim

psychiatry, Soonchunhyang university hospital, cheonan, Korea, Republic Of

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Introduction: This study investigated source-level cortical functional networks using resting-state electroencephalography (EEG) in patients with Bipolar disorder and Major depressive disorder, comparing the neuropathology of these disorders.

Objectives: This study investigated source-level cortical functional networks using resting-state electroencephalography (EEG) in patients with Bipolar disorder and Major depressive disorder, comparing the neuropathology of these disorders.

Methods: A total of 116 participants (35 patients diagnosed with bipolar disorder(BD), 39 patients diagnosed with Major depressive disorder(MDD), and 42 people who are healthy-control groups(HC)) were enrolled for this study. Depression and anxiety were evaluated with using State-Trait Anxiety Inventory (STAI) and Beck Depression Inventory (BDI). Graph theory-based source-level weighted functional networks were assessed via strength, clustering coefficient (CC), and path length (PL) in six frequency bands.

Results: At the global level, patients with BD and MDD showed higher strength ($p = 0.001$) and CC ($p = 0.001$), and lower PL ($p < 0.001$) in the high beta band, compared to HCs. At the nodal level, compared to HCs, patients with BD showed higher high beta band nodal CCs in the right precuneus($p < 0.001$), left isthmus cingulate($p < 0.001$), bilateral paracentral($p < 0.001$), and left superior frontal($p < 0.001$); however, patients with MDD showed higher nodal CC only in the right precuneus($p < 0.001$) compared to HCs. Although both MDD and BD patients had similar global level network changes, they had different nodal level network changes compared to HCs.

Conclusions: This study suggest that both patients have similar network changes at the global level, but they have different network changes at the nodal level. Also, the higher nodal CCs in the high beta band might indicate the regions became more connected with their neighbors in accordance with the severity of depressive and anxious states. This study found a significant correlation between cortical network state and anxiety-related psychological measure in BD patients. Our source-level cortical network indices might contribute to the understanding of the neuropathological mechanisms in these two disorders.

Disclosure of Interest: None Declared

EPP0364

Interplay of Environmental Factors, Genetic Susceptibility, and Sleep Disturbances predict Bipolar Disorder's Relapses: preliminary results from a pilot study

M. Bort^{1,2,3*}, G. Fico^{1,2,3}, V. Oliva^{1,2,3,4}, M. de Prisco^{1,2,3,5}, L. Bracco^{1,2,3,6}, C. Possidente^{1,2,3,4}, M. Y. Rivas⁷, V. Ruiz⁷, L. Montejo^{1,2,3,5}, E. Vieta^{1,2,3,5} and A. Murru^{1,2,3}

¹Bipolar and Depressive Disorders Unit, Hospital Clínic de Barcelona;

²Departament de Medicina, Facultat de Medicina i Ciències de la Salut, Universitat de Barcelona (UB); ³Institut d'Investigacions Biomèdiques

August Pi i Sunyer (IDIBAPS), Barcelona, Spain; ⁴Department of Biomedical and Neuromotor Sciences, University of Bologna, Bologna, Italy; ⁵Centro de Investigación Biomédica en Red de Salud Mental (CIBERSAM), Instituto de Salud Carlos III, Madrid, Spain; ⁶Department of Pathophysiology and Transplantation, University of Milan, Milan, Italy and ⁷Institut Clínic de Neurociències, Barcelona, Spain

*Corresponding author.

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Introduction: Predicting acute affective episodes in individuals with Bipolar Disorder (BD) remains a clinical challenge. Specific environmental stressors, including air pollution, noise, and temperature variations might worsen affective symptoms or sleep in the general population, but their role in BD relapses is often overlooked. Indeed, they might exacerbate BD by perturbing circadian rhythms – fundamental aspects of BD.

Objectives: We thereby present the protocol of this pilot study and future preliminary data. We aim to longitudinally assess sleep alterations, mood fluctuations, and environmental exposure to several factors (air pollutants, climate, noise, artificial light-at-night, green space access) in patients with BD and to check the association of these variables with BD relapses.

Methods: In this pilot study, we will recruit 40 patients with BD in a 6-month prospective study. Patients were assessed during baseline, at 3 and 6 months. Data recollected will consist of a subjective (questionnaires) and objective (through meteorological stations) evaluation of physical environmental factors around the home residence; clinical assessment of mood and circadian rhythms, and continuous tracking of sleep-wake patterns, energy, and movement using actigraphy.

Results: Expected results will show that exposure to a worse environment (higher pollution, noise, light exposure, climate) will be associated with worse BD outcomes (i.e., relapse, mood symptoms, sleep alterations).

Conclusions: We will be sharing preliminary data from our ongoing study, offering insights into early patterns and findings that shed light on our objectives.

Disclosure of Interest: None Declared

EPP0365

Korean Medication Algorithm for Bipolar Disorder: changes in preferred medications for mania over 20 years

D.-I. Jon^{1*}, Y. S. Woo², J.-H. Jeong², J.-S. Seo³, J. G. Lee⁴, B.-H. Yoon⁵, I. Sohn⁶ and W.-M. Bahk²

¹Hallym University Sacred Heart Hospital, Anyang; ²The Catholic University; ³Joongang University, Seoul; ⁴Inje University, Busan; ⁵Naju National Hospital, Naju and ⁶Kyeyo Hospital, Euwang, Korea, Republic Of

*Corresponding author.

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Introduction: Majority of international guidelines for bipolar disorders are based on evidences from clinical trials. In contrast, the Korean Medication Algorithm Project for Bipolar Disorder (KMAP-BP) was developed to adopt an expert-consensus paradigm which was more practical and specific to the atmosphere in Korea.

Objectives: In this study, preferred medication strategies for acute mania over six consecutively published KMAP-BP (2002, 2006, 2010, 2014, 2018, and 2022) were investigated.

Methods: A written survey using a nine-point scale was asked to Korean experts about the appropriateness of various treatment strategies and treatment agents. A written survey asked about the appropriateness of various treatment strategies and treatment agents commonly used by clinicians as the first-line.

Results: The most preferred option for the initial treatment of mania was a combination of a mood stabilizer (MS) and an atypical antipsychotic (AAP) in every edition. Preference for combined treatment for euphoric mania increased, peaked in KMAP-BP 2010, and declined slightly. Either MS or AAP monotherapy was also considered a first-line strategy for mania, but not for all types of episodes, including mixed/psychotic mania. Among MSs, lithium and valproate are almost equally preferred except in the mixed subtype where valproate is the most recommended MS. The preference of valproate showed reverse U-shaped curve. This preference change of valproate may indicate the concern about teratotoxicity in women. Quetiapine, aripiprazole, and olanzapine were the preferred AAP for acute mania since 2014. This change might depend on the recent evidences and safety profile. In cases of unsatisfactory response to initial medications, switching or adding another first-line agent was recommended. The most notable changes over time included the increasing preference for AAPs.

Conclusions: The Korean experts have been increasingly convinced of the effectiveness of a combination therapy for acute mania. There have been evident preference changes: increased for AAP and decreased for carbamazepine.

Disclosure of Interest: None Declared

Child and Adolescent Psychiatry

EPP0367

The morbidity and prevalence of mental pathology in children and adolescents in the kyrgyz republic for 2005-2020

A. Nurali Kyzy^{1,2,3*} and T. M. Kadyrova^{1,3}

¹medical psychology, psychiatry and addiction, I.K. Ahunbaev Kyrgyz State Medical Academy; ²childrens department, Republican Center for Psychiatry and Narcology and ³member, Kyrgyz Psychiatric Association, Bishkek, Kyrgyzstan

*Corresponding author.

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Introduction: One of the principles of healthcare is preventive focus, that is, the implementation of measures to improve the hygienic education of the population and maintain a healthy lifestyle. The scientific rationale for carrying out primary prevention activities is based on an analysis of morbidity and prevalence rates and their dynamics.

Objectives: to conduct a comparative analysis of the primary incidence and prevalence of mental pathology in children and adolescents (0-17 years) in the Kyrgyz Republic for 2005-2020 .

Methods: statistical data from the Republican Center for Electronic Health and the National Statistical Committee of the Kyrgyz Republic were used (<http://www.stat.kg/ru/rss/>), (<http://cez.med.kg/>).

Results: primary incidence of mental pathology among children and adolescents in 2005, 2010, 2015 and 2020 amounted to 66.2, 44.1, 44.8, 51.1 respectively (based on 100,000 the child population). The prevalence of mental pathology for 2005-2020 was 418.4, 317.0, 312.5, 400.0 respectively (based on 100,000 the child population). That is, morbidity and prevalence rates show higher numbers in 2005 and in 2020 (Diagram №1). In the gender aspect, morbidity rates were higher in males 40.0, 28.0, 31.3, 31.0 compared to females 26.3, 16.1, 17.1, 20.1 (based on 100,000 the child population; (Diagram №2).

Image:

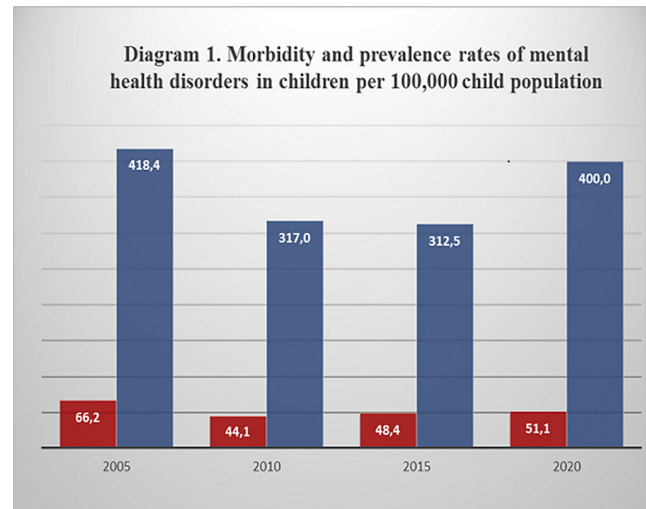
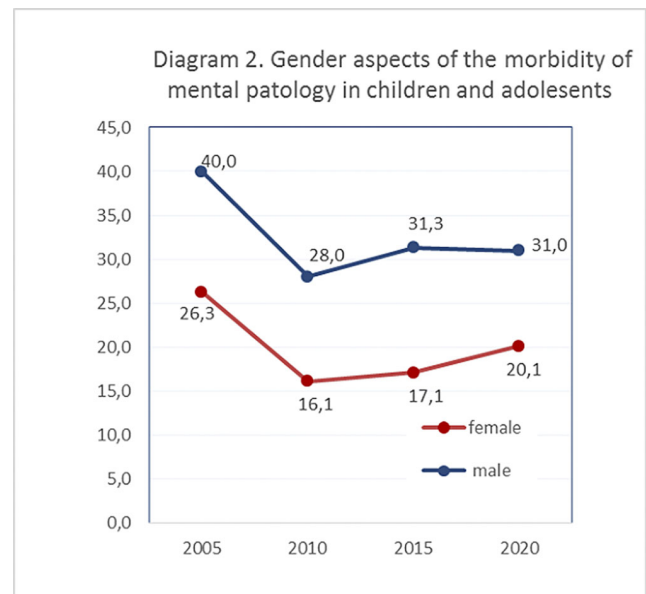


Image 2:



Conclusions: the variability of the obtained indicators of morbidity and prevalence of mental pathology in children and adolescents is due to difficulties in providing specialized psychiatric care to the child population due to the lack of child psychiatrists in the regions