S1046 E-Poster Viewing

systems, psychiatric medications, and resultant dental pathologies highlights the need for integrated dental and psychiatric care. Effective management of bruxism through targeted dental interventions and tailored psychiatric treatments can significantly improve both dental health and psychiatric well-being.

Disclosure of Interest: None Declared

#### EPV1633

# **Exploring the Links Between Cognitive Deficits and EEG Spectral Density in Schizophrenia**

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**Introduction:** The research revealed significant correlations between cognitive performance, assessed by psychometric scales, and variations in frequency bands in the electroencephalography (EEG), illustrating the link between electroencephalographic activity and cognitive functions in schizophrenic patients

**Objectives:** Our study aimed to explore the relationship between the electroencephalographic spectral power of slow frequency bands (delta and theta) and cognitive functions in patients with schizophrenia by comparing them to healthy subjects.

Methods: We conducted a cross-sectional, descriptive, and analytical study involving 15 schizophrenic patients and 15 healthy controls. The study was performed at the Psychiatry Department "C" outpatient unit at Hedi Chaker University Hospital in Sfax in Tunisia. We used the Arabic literary version of the Screen for Cognitive Impairment in Psychiatry (SCIP) scale to assess cognitive functions. Participants underwent a standard wakefulness EEG with eyes closed at the Functional Explorations Department of Habib Bourguiba Hospital in Sfax in Tunisia. Linear regression analysis was used to examine correlations between the total SCIP score and the absolute spectral density (ASD) values of EEG oscillations.

**Results:** Linear regression analysis revealed a negative correlation between the total SCIP score and the delta wave ASD at T5 (left temporal) (r = -0.37; p = 0.025) and theta wave ASD at Fp2 (right prefrontal) (r = -0.131; p = 0.006). A positive correlation was found between theta wave ASD at F3 (left frontal) (r = 0.125; p = 0.02) and the total SCIP score. It revealed a negative correlation between the total SCIP score and the age of onset of schizophrenia (r = -0.647; p = 0.001). **Conclusions:** These results suggest that theta and delta power at rest, as measured by EEG, may serve as potential biomarkers for cognitive deficits in patients with schizophrenia. These findings could contribute to a better understanding of the neurophysiological basis of cognitive alterations associated with this condition.

Disclosure of Interest: None Declared

### **EPV1634**

# Distinguishing Quantitative Electroencephalogram Findings between Panic Disorder and Generalized Anxiety Disorder

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**Introduction:** It is important to have early diagnosis and early intervention for generalized anxiety disorder(GAD) and panic disorder(PD). However, it is difficult to distinguish GAD from PD. Neurobehavioral markers that differentiate GAD and PD would be helpful to refine classification schemes based on neurobiological measures.

**Objectives:** The aim of this study is to determine the distinguishing neurophysiological characteristics between generalized anxiety disorder and panic disorder using quantitative EEG.

Methods: The study included 36 patients with GAD and 25 patients with PD. Resting vigilance controlled EEG recordings were assessed at 64 electrode sites according to the international 10/20 system. QEEG were compared between GAD and PD groups by frequency bands (delta 1-3 Hz, theta 4-7 Hz, alpha 8-12 Hz, beta 12-25 Hz, high beta 25-30 Hz, gamma 30-40 Hz and total 1-40 Hz) made by spectral analysis.

**Results:** The absolute powers of theta and alpha bands at the frontal area differed between GAD and PD group. The absolute power of the theta activity was decreased in FP1 and FP2 (p < 0.05) and the absolute power of the alpha activity was decreased in F3 (p < 0.05) in cases with GAD compared to PD.

**Conclusions:** The differences in QEEG power suggest that underlying pathophysiologic mechanisms may be different between GAD and PD. The findings that the decreased absolute powers of the theta and alpha activity at the frontal area in GAD may be the main neurophysiological characteristics of the GAD and help to have early differential diagnosis between GAD and PD.

Disclosure of Interest: None Declared

Psychosurgery and Stimulation Methods (ECT, TMS, VNS, DBS)

# **EPV1635**

# Two-Year Overview of Theta-Burst Stimulation for Treatment-resistant Depression: Assessing Efficacy and Outcomes

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**Introduction:** Major depressive disorder (MDD) is a very common and debilitating disorder. MDD accounts for 4.3% of the global burden of disease, is among the largest single causes of disability worldwide, and is an important cause of premature death. Depression expands its negative influence in all aspects of life, being estimate that 12 billion productive workdays are lost every year to depression and anxiety.

On top of that, non-response to first line pharmacological and psychotherapeutic treatments are substantial, with treatment-resistant depression (TRD) affecting approximately one third of these patients. These patients are thus candidates for non-invasive neuromodulation procedures such as repetitive transcranial magnetic stimulation (TMS), included in all major treatment guidelines. **Objectives:** With this work we intend to present a descriptive analysis of the efficacy of the intermittent theta burst TMS (iTBS)

European Psychiatry S1047

protocol in patients with TRD who underwent this treatment at Hospital de Magalhães Lemos, Porto, since July 2022.

**Methods:** We conducted an analysis of sociodemographic characteristics of patients who underwent treatment with iTBS. The primary outcome was the Beck's Depression Inventory (BDI) score difference between the first and last sessions. Secondary outcome included the Montgomery-Asberg Depression Rating Scale (MADRS) applied to a smaller cluster of patients.

**Results:** Since July 2022, more than 50 cycles of iTBS treatment have been performed.

More than 60% of the TRD patients enrolled scored positive changes with the treatment, on BDI. Improvements exceeded non-response in both sexes, irrespective of disease duration, and in nearly all age groups – except for the single patient under 25 years old. Positive changes were also observed with the MADRS, with more than 70% of this cluster of TRD patients scoring positive changes, including the patient under 25 years old who score non-response with BDI.

iTBS was also applied to a small number of patients diagnosed with treatment-resistant bipolar major depression, in whom positive changes outweighed non-response.

All iTBS cycles were performed without major adverse effects being reported.

**Conclusions:** TMs, represented here by the iTBS protocol, is safe and effective in improving depressive symptoms when first line treatments are not. The positive effects extend to patients diagnosed with BD, despite the small number of patients present in our patient pool.

Combined with the logistical ease of its use, not requiring general anaesthesia or induction of seizures like electroconvulsive therapy, TMS presents itself as an important alternative in the treatment of TRD.

Disclosure of Interest: None Declared

## **EPV1636**

Descriptive analysis of the Application of Electroconvulsive Therapy in patients with acute psychiatric pathology admitted to a Psychiatric Hospitalization Unit

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**Introduction: Electroconvulsive therapy (ECT)** is a recognized treatment for various psychiatric conditions (Bernardo et al., 2018). However, there is a lack of recent studies describing the clinical characteristics of patients undergoing ECT (Peltzman et al., 2020).

**Objectives:** To provide an updated evaluation of the clinical **characteristics**, **treatment parameters**, **and outcomes** of patients receiving ECT at Clinica Universidad de Navarra (CUN), focusing on its **effectiveness and evolution** over recent years.

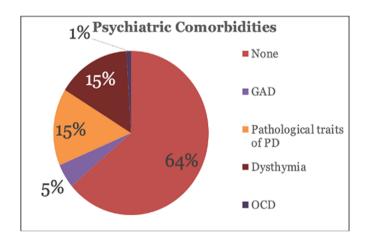
Methods: This cross-sectional descriptive study examines patients who underwent electroconvulsive therapy (ECT) at CUN's Psychiatric Hospitalization Unit from January 2019 to August 2023. It focuses on those who received bifrontotemporal ECT, with stimulation power quantified using the DGx program on the Thymatron® machine. Collected data include age, sex, prior psychotropic medication use, ECT indication, comorbidities, Stimulus potency (% DGx), seizure duration (seconds on the electroencephalogram), and anesthetic induction type. Hamilton Anxiety and Depression Scales were recorded before and after treatment when clinically indicated.

**Results:** ECT was administered in 80 cases, constituting 8.62% of admitted patients, with 33.75% being male. Among these, 33% had **psychiatric comorbidities**, most commonly being pathological personality traits (16%) and generalized anxiety disorder (5.3%) (Image 1). **Non-psychiatric comorbidities** included endocrine-metabolic conditions 49% and cardiac conditions 34% (Image 2.)

Pre-ECT, the most **common psychotropic medications** included benzodiazepines (87.5%), atypical antipsychotics (76.5%), and dual antidepressants (47.5%). Propofol was used for **initial anesthetic induction** in 86.25% of cases, with 30.43% requiring a switch to thiopental due to the reduced efficacy. The average number of **ECT sessions** per patient was 8.9 (range: 3-13), with a **mean seizure duration** of 30.5 seconds. The **primary indications for ECT** were depressive disorders (85%) and psychotic disorders (11%) (Image 3).

Before ECT, the **average Hamilton Depression Scale** score was 25.3, decreasing to 5.3 post-treatment. Similarly, the **Hamilton Anxiety Scale score average** was 23.72 before ECT and 4.6 after.

Image 1:



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