S164 E-Poster Presentation

and psychotic symptoms being less frequent. Psychotic symptoms are difficult to manage, as they are usually resistant to antipsychotic treatment, which is why it is considered an indication for medical treatment of Cushing's syndrome.

**Objectives:** To give visibility to this type of psychotic disorders of organic origin to deepen their study as well as raise awareness among professionals dedicated to clinical care with the intention of improving their prevention.

**Methods:** A description of a clinical case is made, accompanied by a bibliographic review on psychosis of endogenous corticosteroid origin.

**Results:** We describe the case of a 44-year-old woman who was admitted to the charge of Internal Medicine due to Cushing's syndrome. During her admission, she presented a debut of positive psychotic symptoms, so the liaison psychiatry team followed her up. She was diagnosed with an ACTH-secreting lung carcinoid tumor. **Conclusions:** This entity should be taken into account in cases of atypical psychosis in patients with compatible phenotypic characteristics.

**Disclosure:** No significant relationships. **Keywords:** Cushing's syndrome; cushing; carcinoid; glucocorticoids

#### **EPP0120**

# Forced Normalization and other neuro-psychiatric manifestations of epilepsy - Case series and A literature review

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**Introduction:** Psychosis of epilepsy has intrigued many neurologists and psychiatrists. We attempt to summarize the phenomenon, suggested diagnostic criteria and distinguishing features between different clinical entities linked with epilepsy. This case series is unique and rare as we include the case that meets full criteria of forced normalization.

**Objectives:** 1) To understand the concept and diagnostic criteria of Forced Normalization 2) To differentiate different psychiatric manifestations of epilepsy

**Methods:** A total of 13 studies were reviewed using the key words from 1999 –2021 using different search engines- Google scholar, Pub-med, Elsevier, Dynamed.

**Results:** Patients with epilepsy have an eightfold increased risk of psychosis (6). Forced Normalization has been described as the onset of psychotic or mood symptoms after the resolution or remission of >50% of seizures, evidenced by normal EEG. It was first described in 1950's and has been extensively studied since 19<sup>th</sup>century. The age of onset can be 8 years to 71 years of age (mean - 28.3). The exact mechanism is still unknown. Different factors have been linked to this phenomenon like kindling, neurotransmitters etc.

**Conclusions:** It is interesting to understand the antagonistic relationship between epilepsy and psychosis. Forced normalization is a rare entity because it is hard to diagnose due to possible overlap with other clinical entities like post-ictal or side effects of AED. The

prognosis seems to be favorable depending on the trigger for the symptoms with better prognosis if the resolution of seizures was achieved AED. Mood disorders had worse prognosis than dissociation and psychosis.

Disclosure: No significant relationships.

**Keywords:** Alternative psychosis; forced normalization; psychosis of epilepsy; epilepsy

#### **EPP0121**

# Review of gastrointestinal bleeding during use of SSRIs combined with use of NSAID

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**Introduction:** In recent years, more and more attention has been paid to the risks of using SSRIs. This group of antidepressants may be associated with an increased risk of gastrointestinal bleeding. This risk would be even further increased with concomitant use of NSAIDs. A number of studies have described this interaction, however they reported conflicting results.

**Objectives:** Our objective was to investigate the risk of gastrointestinal bleeding with SSRIs, with or without NSAID use.

**Methods:** We performed a literature search, using Pubmed, EMBASE, and Cochrane library, in order to investigate controlled trials, cohort, case-control and cross-sectional studies that reported the incidence of gastrointestinal bleeding s on SSRIs with or without concurrent NSAID use, compared to placebo or no treatment.

**Results:** 15 case-control studies and 4 cohort studies were included in the analysis. There was an increased risk of gastrointestinal bleeding with SSRIs in the cohort studies and case-control studies. The risk of gastrointestinal bleeding was even further increased with the combined use of both SSRIs and NSAIDs.

**Conclusions:** SSRIs are associated with a modest increase of gastro-intestinal bleeding. However, this risk is significantly increased when SSRIs are used in combination with NSAIDs. Psychiatrists should be aware of the hazards in prescribing these medications together.

**Disclosure:** No significant relationships. **Keywords:** bleeding; SSRIs; NSAID

### **EPP0122**

# Transdiagnostic Role of Glutamate and White Matter Damage in Neuropsychiatric Disorders: A Systematic Review

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**Introduction:** Neuropsychiatric disorders including Generalized Anxiety Disorder (GAD), Obsessive-Compulsive Disorder (OCD), Major Depressive Disorder (MDD), Bipolar Disorder (BD), and Schizophrenia (SZ) have been considered distinct categories of diseases despite their overlapping characteristics and symptomatology. **Objectives:** We aimed to provide an in-depth review elucidating the role of glutamate/Glx and white matter (WM) abnormalities from a transdiagnostic perspective.

**Methods:** The PubMed online database was searched for studies published between 2010 and 2021. After careful screening, 399 studies were included.

Results: The findings point to decreased levels of glutamate in the Anterior Cingulate Cortex in both SZ and BD, whereas Glx is elevated in the Hippocampus in SZ and MDD. With regard to WM abnormalities, the Corpus Callosum and superior Longitudinal Fascicle were the most consistently identified brain regions showing decreased fractional anisotropy (FA) across all the reviewed disorders, except GAD. Additionally, the Uncinate Fasciculus was found to be affected in all the reviewed disorders, except OCD. Decreased FA was also found in the inferior Longitudinal Fasciculus, inferior Fronto-Occipital Fasciculus, Thalamic Radiation, and Corona Radiata in SZ, BD, and MDD. Decreased FA in the Fornix and Corticospinal Tract were found in BD and SZ patients. The Cingulum and Anterior Limb of Internal Capsule exhibited decreased FA in MDD and SZ patients.

**Conclusions:** The results suggest a gradual increase in severity from GAD to SZ defined by the number of brain regions with WM abnormality which may be partially caused by abnormal glutamate levels. WM damage could thus be considered a potential marker of some of the main neuropsychiatric disorders.

**Disclosure:** No significant relationships.

Keywords: White matter; Transdiagnostic; Neuropsychiatric

Disorders; Glutamate

# e-Mental Health 01 / Quality Management

# **EPP0123**

Use of machine learning on clinical questionnaires data to support the diagnostic classification of Attention DeficitHyperactivity Disorder: a personalized medicine approach

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**Introduction:** Attention Deficit / Hyperactivity Disorder (ADHD) is a highly prevalent neurodevelopmental condition characterized by inattention, motor hyperactivity and impulsivity. ADHD cognitive and behavioral presentation is characterized by a high heterogeneity (APA, 2013). Indeed, a complex diagnostic process, that considers several validated tools, is, to date, necessary.

**Objectives:** The main aim is to develop supervised machine learning (ML) algorithms that could be used to support the diagnostic process for ADHD, by identifying the most relevant features in discriminating between the presence or absence of the ADHD diagnosis in children.

**Methods:** We analyzed data from 342 children (Mean age: 8y 8m  $\pm$  1y; 61 F) referred for possible ADHD symptomatology. Assessments were performed by an expert clinician and through questionnaires: Social Responsiveness Scale (SRS), Child Behavior Checklist (CBCL), Conners Rating Scale for Parents (CPRS) and for Teachers (CTRS). Data were analyzed using a decision tree classifier and random forest algorithms.

**Results:** The decision tree model performed an accuracy of 0.71. The random forest model that was identified as the best tested, performed an accuracy of 0.77 (Figure 1) and it identified as most informative parent- and teacher-rated DSM-oriented ADHD symptoms (Figure 2).

Confusion Matrix and Statistics

# Reference Prediction ADHD nonADHD ADHD 33 9 nonADHD 7 19

Accuracy: 0.7647 95% CI: (0.6462, 0.8591)

No Information Rate: 0.5882 P-Value [Acc > NIR]: 0.001766

Figure 1: Random forest confusion matrix and statistics.

## Random Forest model variables importance

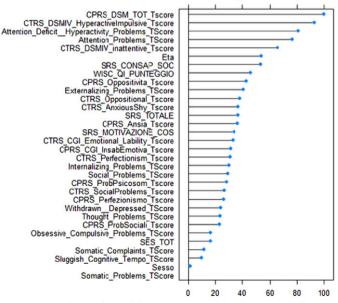


Figure 2: Ranking of variables importance.