

Introduction: Machine learning has increasingly been applied to classification of psychosis spectrum in neuroimaging research. However, a number of multimodal studies using MRI and electroencephalography (EEG) is quite limited.

Objectives: To assess the power of multimodal structural MRI (sMRI) and EEG data to provide pairwise discrimination between first-episode schizophrenia (FES) patients, individuals at ultra-high-risk of psychosis (UHR), and healthy controls (HC) using machine learning algorithms.

Methods: 46 FES male patients, 39 UHR individuals, and 54 matched HC underwent sMRI (3T Philips scanner) and electroencephalography. T1-weighted images were processed via FreeSurfer to obtain cortical and subcortical measures. L2 regularized logistic regression was used to evaluate the efficacy of diagnostic prediction.

Results: The accuracies of pairwise discriminations were: 87% for FES vs HC (specificity 83%, sensitivity 91%); 77% for FES vs UHR (specificity 76%, sensitivity 79%); 75% for UHR vs HC (specificity 77%, sensitivity 73%).

Conclusions: Current findings suggest that the patterns of anatomical and functional variability have potential as biomarkers for discrimination between schizophrenia, UHR, and healthy subjects. Furthermore, results show that the selection and multimodality of feature types are important. Specifically, adding EEG data to morphometric measures improved accuracy rates in FES vs HC and FES vs UHR contrasts, whereas standalone EEG data provided higher accuracy compared with morphometric or multimodal data in UHR vs HC discrimination. Expectedly, predictive power for the UHR was smaller than for the FES due to its intermediate anatomical features, located between those observed in healthy controls and those found in patients. The work was supported by RFBR grant 20-013-00748

Keywords: machine learning; psychosis; MRI; EEG

Neuroscience in psychiatry

EPP0804

Gastrointestinal functional impairments and epilepsy: Searching the possible connection mechanisms

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Introduction: Epilepsy is one of the most common neurological disorders worldwide characterized by unpredictable and recurrent seizures, resulting from abnormal brain activity, accompanied by loss of consciousness and control of bowel or bladder function.

Objectives: A higher risk of comorbid disorders in epilepsy has been reported for psychiatric affective conditions (i.e., depression and schizophrenia), sleep alterations, as well as some gastrointestinal disorders (inflammatory bowel disease and constipation), and lately there is an interest to determine and explain a putative

association between functional gastrointestinal disorders (FGID) such as Irritable bowel syndrome (IBS) and epilepsy.

Methods: In this way, we decided to review the current aspects of the gastrointestinal functional impairments and epilepsy by searching in the literature possible connection mechanisms.

Results: A handful of studies have only recently reported an increased prevalence of IBS in epilepsy in children, in adults, and conversely a higher incidence of epilepsy in IBS patients at the populational level. Paroxysmal abdominal complaints resulting from seizure activity are present in the abdominal epilepsy syndrome and the link between constipation and seizures has been demonstrated in animal models. Currently, there is no data to directly address the cellular and molecular connections between epilepsy and FGID, but these would probably involve the bidirectional dysregulation of the brain-gut axis with increased afferent processing of visceral nociceptive signals and subsequent hyperalgesia.

Conclusions: Thus, intestinal dysbiosis may play a role in triggering inflammatory and immune-related mechanisms reported in IBS manifestations and epilepsy, while vagal neuroimmunomodulation issues are likely to be involved in both pathologies as well.

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Keywords: FGID; Epilepsy; irritable bowel syndrome; mechanisms

EPP0805

Affective and cognitive impairments in patients with epilepsy

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Introduction: The most common psychiatric conditions in epilepsy are depression, anxiety, behavioral, psychotic disorders and cognitive disorders as well as those which can be caused by convulsive seizures.

Objectives: The aims of the research were to define cognitive and affective impairments in patients with epilepsy and their quality of life. Since the presents of cognitive impairments and affective disorders have a considerable impact on the functioning of patients, their socialization and the level of their disability.

Methods: We studied the features of clinical and psychopathological manifestations in patients suffering from epilepsy. The study covered 100 patients (47 men and 53 women) who were in inpatient care. The following psychodiagnostic techniques were used: the test of 10 words of Luria, the MOCA test, the Münsterberg test, Mini-Mult test, the quality of life scale, the Hamilton scale of depression and anxiety.

Results: The following data of the study were observed: 88 % patients had decreased memory, 38% had symptoms of depression, 28% had mild situational or neurotic depression, 8% had moderate depression, 2% had severe depression, 20% had a state of severe

anxiety, 16% had symptoms of anxiety. The average rate of quality of life among all examined people was 67.5 out of 100.

Conclusions: The results of the conducted research indicate the need for further study of the features of the comorbid pathology in epilepsy and development and implementation pharmacological and nonpharmacological methods for treatments of epilepsy.

Keywords: Epilepsy; Cognitive disorders; Affective disorders

EPP0806

¡ I see presenters in my house !

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Introduction: Charles Bonnet syndrome (CBS) is characterized by the presence of visual hallucinations, generally complex, which occurs in patients with alterations in the visual pathway. The majority of affected patients are elderly. It appears in 15% of people with visual loss, predominantly in the 80-year-old female gender.

Objectives: To present a clinical case of a patient with visual hallucinations and a possible diagnosis of Charles Bonnet syndrome. Highlight the importance of an adequate differential diagnosis.

Methods: Bibliographic review of the treatment and diagnosis of CBS, from articles published in the last 5 years in Pubmed.

Results: Woman, 80 years old. No ophthalmological history except those associated with advanced age. She goes to the emergency room due to the presence of visual hallucinosis, in the form of "television presenters" of whom she makes partial criticism, being aware most of the time of their unreality. Hallucinations are not accompanied by anxiety or significant affective repercussions. Discarded delirium, intoxication by substances or drugs that cause the condition. Currently under follow-up to rule out other causes.

Conclusions: The diagnosis of SCB requires a multidisciplinary approach between neurologists, psychiatrists and ophthalmologists in order to avoid erroneous diagnoses. The differential diagnosis should be made with pathologies such as Lewy body dementia, Parkinson's disease, delirium, substance intoxication, migraine aura, and metabolic encephalopathy, among others. It is important to involve the family in the treatment of the syndrome to reinforce the recognition of the unreality of these hallucinations in the patients. Antipsychotic treatment can be effective only if the condition is extremely distressing.

Keywords: Ophthalmologists; Charles Bonnet; visual hallucinations; visual pathway

EPP0808

Catatonia in patients with dementia

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Introduction: Catatonia has been reported with almost all types of dementia but it remains under-diagnosed.

Objectives: Describe the characteristics of catatonia in patients with dementia and the efficiency of early management.

Methods: We review a case of a young patient admitted in our psychiatric department for catatonia and after efficient treatment, assessment revealed a dementia.

Results: A 49-year-old male treated with classic antipsychotic drug for an acute psychotic episode at age of 35 years. Three years later, the patient was admitted for behavioral disorders with delirium and confusion. The patient was treated with high-doses of antipsychotic drugs with vasodilator treatment. Currently, ten years later, he was hospitalized in a stuporous state with food refusal, sustained posture and worsening of his overall situation. At the mental assessment, the patient was motionless, mute and rigid with frozen facial expression and gaze stare. Negativity and opposition were obvious against any solicitation. Moreover, the physical examination has shown a worsening of the overall state of health, weight loss and walking difficulties. After symptomatic treatment of catatonia with benzodiazepine, the assessment revealed an aphasia-apraxo-agnosic syndrome with memory dysfunctions such as amnesia with false recognition and executive dysfunction as well as limitations in intellectual abilities. A brain scan revealed cortical and subcortical atrophy predominant in the bilateral fronto-temporo-parietal region associated with ventricular system expansion. The diagnosis of Alzheimer's disease was made. Following atypical antipsychotic treatment combined with benzodiazepine, there was release of inhibition.

Conclusions: Catatonia is a severe neuropsychiatric syndrome with an excellent prognosis if recognized and treated without delay.

Keywords: Catatonia; psychiatry; dementia; Alzheimer

EPP0809

Pedophilic sex offender show reduced activation in the right dlPFC during integration of emotion and cognition – preliminary results

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Introduction: The pedophilic disorder is characterized by a sexual preference for children and leads to child sexual abuse (CSA) in half of the patients. Studies showed that pedophiles with a history of CSA (CSA+) are inferior, in inhibitory control, to those without (CSA-).

Objectives: Inhibitory control may be influenced by negative affectivity, which was shown to be a state factor facilitating sexual abuse. Nevertheless, it is not known if distress influence CSA+ and CSA- equally.

Methods: We recruited three groups of participants: healthy controls (HC) CSA+ and CSA- who performed an emotional Go-NoGo block task. The task was design specifically to correspond to a situation in which an individual is opposed by a negative life event. In each trial, participants were presented with photographs, either of neutral or negative valence, which did not require reaction. After