

Methods: Data analysis was conducted using Mayring qualitative content analysis as well as an additional quantitative survey with state refugee reception centers' employees.

Results: The results indicate that refuKey facilitated the access to mental health care for refugees in terms of systematic identification of mental disorders, eased transitions and increased networking between the mental health care institutions and sectors. Planning and implementation of treatment is described as being more coordinated, solution oriented and sustainable due to multiprofessional collaboration and regular use of qualified interpreters. Reduced distress as well as increased transcultural expertise was found for professionals.

Conclusions: The persisting barriers for refugees in access to mental health care, especially to psychotherapeutic treatment and the emotional burden for professionals underlines the need for further support and research. The experts highly endorse the continuance of refuKey. Furthermore, they call for expansion of the project in terms of staff and new sites and changes of health policies to guarantee the access to adequate health care for traumatized refugees.

Disclosure: No significant relationships.

Keywords: Refugee; stepped-care; cooperation centers; mental health care

Neuroimaging

EPV0890

Bipolar disorder and grey matter heterotopia : a case report

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Introduction: The grey matter heterotopias are a relatively common group of conditions characterized by interruption of normal neuronal migration from near the ventricle to the cortex. Subependymal grey matter heterotopia, also known as periventricular heterotopia, is the most common form.

Objectives: To search a link between bipolar disorder and grey matter heterotopia

Methods: A case report of a woman with grey matter heterotopia who is diagnosed as bipolar

Results: A 34 year old woman was admitted at Razi psychiatric hospital 3 months after childbirth. She was agitated, logorrhic with multiple projects and insomniac. The diagnosis was a manic episode with a marked score of 28/44 at The Bech-Rafaelsen Mania Scale (MAS). The patient was treated with 4 mg of risperidone and 1000 mg of sodium valproate with partial remission after two weeks. One month after her discharge, she had depressive mood, asthenia, anhedonia and insomnia. She had a score of 19 at Hamilton Depression Rating Scale (HDRS). She was switched from risperidone to olanzapine 15mg/j with partial remission after two weeks. In front of persistent symptoms with labile mood, she took lithium 1000 mg/j. She was complaining of a headache and a fluctuating heaviness of the right upper limb. At brain imaging, she had periventricular nodular heterotopia. The patient was addressed to neurology department.

Conclusions: Grey matter heterotopia can cause a variety of neuropsychiatric symptoms which can lead to diagnosis difficulties.

Therefore, in front of atypical symptoms or drug-resistance, patients should be referred for brain imaging.

Disclosure: No significant relationships.

Keywords: grey matter heterotopia; bipolar disorder

EPV0891

Review of the clinical spectrum of Fahr's syndrome.

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Introduction: 70-year-old male with previous diagnosis of bipolar disorder and poor adherence. In the past months, he showed incipient behavioral alterations, for which he entered psychiatry service. During admission, frequent memory failures, isolation, apathy and mutism were identified, classifying the case as a possible dementia. A CT-scan was performed, revealing bilateral, simmetrical calcifications of the basal ganglia, compatible with Fahr's syndrome.



Objectives: Review of the available literature regarding Fahr's syndrome, a rare condition which can lead to a wide spectrum of neurological, motor and behavioral symptoms.

Methods: A bibliographic revision has been carried out. Sources used: Google scholar, PubMed.

Results: Fahr's syndrome is characterized by symmetric and bilateral calcification of the basal ganglia, as well as other areas related to motor functions, such as the cerebellum. It is believed that it has an autosomal dominant inheritance, and the symptoms appear between the ages of 40 and 60. The spectrum of clinical manifestations includes motor disorders such as parkinsonism or chorea. The appearance of dementia or psychiatric disorders, such as

schizophrenia like psychosis or mood disorders, are also common. Also pyramidal symptoms, cerebellar dysfunction, speech difficulty or convulsive seizures can be identified.

Conclusions: Fahr's syndrome is rare, with a prevalence of <1 / 1,000,000. Diagnose is based on a compatible CT-scan, with clinical features and exclusion of other medical conditions. Nowadays, treatment is limited to a symptomatic support. The goals of further research are to understand the genetics of this disorder which could lead to an effective method for treating and preventing Fahr's syndrome.

Disclosure: No significant relationships.

Keywords: Fahr's syndrome; Fahr's disease; calcification of basal ganglia

EPV0892

Depressive symptoms are correlated with periaqueductal gray matter functional connectivity in migraine

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Introduction: Depression is the most common comorbidity of migraine. The brain of migraineurs with depression shows differences compared to migraine only or depression only patients. The comorbidity may affect specific regions such as the periaqueductal gray matter (PAG) which is important in negative emotion regulation and pain modulatory system.

Objectives: We hypothesized that the alterations in PAG functional connectivity (FC) may play a role in migraineurs vulnerability for depression.

Methods: A resting-state fMRI was conducted with 34 episodic migraine without aura patients and 41 control subjects. All participants were medication free and they did not have any psychiatric or chronic disorders. Depressive symptoms were measured with Zung Self-Rating Depression Scale. To investigate the relationship between depressive symptoms and PAG functional connectivity, Zung scores were used as covariates in each groups' PAG-FC analysis using the Statistical Parametric Mapping (SPM12) toolbox in MATLAB environment.

Results: There were no significant difference between migraine and control group in Zung scores ($p=0.394$). Negative correlation was found between Zung scores and PAG-FC with thalamus, fusiform gyrus, middle occipital gyrus and calcarine ($p_{FWE}<0.05$) in migraine group. However, there was no significant correlation between Zung scores and PAG-FC in healthy control group.

Conclusions: Our results suggest that PAG-FC with emotion and pain processing areas is affected by depressive symptoms in

migraine patients, but not in healthy controls. Migraine patients without comorbid depression might have vulnerable neuronal pathways for depressive symptoms. A follow-up of these patients could be interesting to determine whether these connectivity alterations predict the possible comorbid depression.

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Keywords: fMRI; migraine; depressive symptoms; PAG

EPV0893

MRI Analysis: Optimization of parameters for diffusion MRI to enhance hippocampal subfield analysis and segmentation (Preliminary Data)

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Introduction: The hippocampus is an important, complex limbic structure anatomically embedded in the medial temporal lobe of each cerebral cortex, which has been implicated in the pathogenesis of neuro-inflammatory disease conditions. Few studies have focused on the characterization of the MRI neuroimaging signatures of highly physio- pathologically relevant subfields of the hippocampus (CA1, CA4-DG, CA2/CA3, SLRM).

Objectives: Using self-guided manually segmented, Diffusion weighted and NODDI maps created from data obtained from the Human Connectome Project (HCP) we intend to test whether Diffusion MRI-based quantitative imaging parameters (MD, FA, ODI, ISOVF, ICVF), indicative of microstructural characteristics of major hippocampal subfields (CA1, CA2/CA3, CA4-DG and SLRM), correspond to predictions for animal literature and imaging-histology correlations. We will also explore the correlations between these parameters and age.

Methods: We used images from the Public connectome data (updated April 2018), exploring subjects with the 3T MRI sessions obtainable from the WU-Minn HCP Data section. For the purpose of this study, we selected and downloaded 10 preliminary imaging data (6 females and 4 males) based on age variability in the following ranges (26-30, 31-35 and 36+). We manually segmented, and computed quantitative parameters.

Results: Converging and consistent literature allude to decreasing volumes with increasing age. Analyzing the volumes from the diffusion maps (pilot data), this was also the case, with volumes computed from CA1 and DG-CA4 sub regions. IQT also allowed for better appreciation of neuroanatomical boundaries and land marks, hence allowing more regions to be easily manually segmented (addition of CA2/CA3).

Conclusions: Application to Neuroinflammatory imaging data.

Disclosure: No significant relationships.

Keywords: Hippocampus; Neuroimaging; IQT; Neuroscience