Introduction: ADHD (Attention-Deficit/Hyperactivity Disorder) is a common treatable disorder that impairs daily functioning along the life span. Pharmacotherapy plays a central role in managing ADHD, but adherence rates can be low, impacting treatment effectiveness.
Objectives: To compare the adherence to the specific medication used to treat ADHD on specific patient populations.
Methods: In this study, we used "Clalit Medical Services" anonymized data base and focused on the first year of treatment with the four available first-line pharmacotherapy products: Methylphenidate tablets, Methylphenidate Slow Release tablets, Methylphenidate Long Aacting capsules, and Oros Methylphenidate tablets. Analyzing data from 214,035 patients of all ages diagnosed with ADHD who initiated pharmacotherapy between 2000 and 2022, we used a Negative Binomial Regression to develop a model to predict the number of prescriptions purchased in the first year of treatment, serving as a proxy for adherence. Our main focus was on identifying medications that enable better adherence.
Results: Oros Methylphenidatehad the highest number of predicted purchases (RR CI 95%: 5.85-5.96). After adjusting for calendar year effects, our results identified gender, age group, and socioeconomic status (SES) as significant predictors of adherence. A significant interaction effect revealed that the predicted number of purchases for a specific medication is influenced by the patient's SES level, i.e., for the lower SES levels adherence with Methylphenidate was better than adherence with Oros Methylphenidate.
Conclusions: The choice of the specific medication available as first-line treatment for ADHD, has a significant effect on adherence. Oros Methylphenidatehas has better adherence than the other MPH formulas. This would guide physicians to prefer the use of Oros Methylphenidateas first line therapy. This is not true for the lower SES. Strengthening our assumptions that knowledge about medication adherence and patient characteristics are potential indicators for improving the treatment of ADHD.

Disclosure of Interest: None Declared

EPP599

Plasma microRNAs reveal a schizophrenia patient subgroup with high inflammation and severe symptoms

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Introduction: Schizophrenia is a complex and highly heterogeneous psychiatric disorder, and it is crucial to understand the different pathophysiology among patients to realize precision psychiatry.
Objectives: This study aims to evaluate the potential of plasma microRNAs (miRNAs) as clinical biomarkers to stratify schizophrenia patients based on molecular profiles and understand the heterogeneous pathophysiology.
Methods: We measured the Positive and Negative Syndrome Scale (PANSS) scores, which are severity scores of clinical symptoms of schizophrenia, along with levels of 179 plasma miRNAs in 26 schizophrenia patients experiencing acute psychosis. We applied hierarchical clustering analysis for the plasma samples on miRNA levels to explore patient subgroups. We then conducted miRNA set enrichment analysis, literature-based text mining and manual literature survey on characteristic miRNAs for each patient subgroup to interpret the heterogenous pathophysiology. This study has been approved by the Ethical Research Practice Committee of Daiichi Sankyo Co., Ltd.
Results: The schizophrenia patients were stratified into three subgroups based on the plasma miRNA profiles. One of these patient subgroups showed a tendency to have relatively high PANSS scores. This patient subgroup was characterized by distinctively low levels of four miRNAs. The enrichment analysis revealed an enrichment of 'Immune Response' pathways associated with these four miRNAs. Consistent with the enrichment results, literature-based text mining confirmed that these four miRNAs were frequently associated with 'inflammation' and IL-1β, IL-6, and TNFα in the literature. We also identified literature-based experimental evidence demonstrating that these four miRNAs reduce IL-1β, IL-6 and TNFα. These results suggest that the patient subgroup with high PANSS scores has relatively high inflammation.
Conclusions: miRNAs may potentially be clinical biomarkers that reflect both the symptoms and molecular pathology of schizophrenia, and they may be able to identify patient subgroups with relatively high inflammation. Such patient stratification based on molecular profiles is expected to be a key tool to realize precision psychiatry, e.g., prescribing right drugs for right patients.

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Psychoneuroimmunology

EPP600

Hashimoto's encephalopathy in a patient with hypothyroidism and bipolar disorder: a case report

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Introduction: Hashimoto's encephalopathy (HE) is a rare, steroid-responsive neuropsychiatric disorder associated with Hashimoto's thyroiditis. The pathophysiology of HE remains unclear, but it is hypothesized to involve an autoimmune mechanism, distinct from thyroid hormone levels. The condition often presents with a variety of neurological and psychiatric symptoms, including cognitive decline, seizures, mood disorders, and movement abnormalities. Timely diagnosis and treatment are crucial to prevent further neurological impairment.
Objectives: This report highlights a case of HE in a patient with bipolar disorder and hypothyroidism.
Methods: A 42-year-old male patient, followed in psychiatry for bipolar disorder type I and in endocrinology for hypothyroidism secondary to Hashimoto's thyroiditis, was admitted to the