increasing the dose of monotherapy, using antipsychotic polipharmacy or adding other types of drugs to clozapine. Unfortunately, these augmentation methods have not yet proven themselves to be effective enough to be added to standard therapy algorythms. On the other hand, electroconvulsive therapy is neuromodulatory method that shows promise in increasing therapeutic success. Although many methods of treatment are being researched, therapy-resistant schizophrenia remains a clinical challenge which affects a significant percentage of population and will require additional research.

Key words: clozapine - electroconvulsive therapy - resistance schizophrenia - treatment

\* \* \* \* \*

# HYPERPROLACTINEMIA AND ANTIPSYCHOTICS IN PATIENTS WITH HASHIMOTO'S THYROIDITIS AND SCHIZOPHRENIA

P. Sobolevskaia<sup>1</sup>, L. Churilov<sup>1</sup>, T. Fedotkina<sup>1</sup>, A. Stepochkina<sup>1</sup>, A. Dolina<sup>1</sup>, A. Gvozdetckii<sup>2</sup> & Y. Shoenfeld<sup>1</sup>

<sup>1</sup>Laboratory of the mosaic of autoimmunity Saint Petersburg State University, Saint-Petersburg, Russian Federation

<sup>2</sup>City organizational and methodological advisory department for psychiatry of the health committee, Skvortsov-Stepanov St. Petersburg Psychiatric Hospital No 3, Saint-Petersburg, Russian Federation

**Background:** Aim of the study is to analyze risks of hyperprolactinemia (HPRL) in antipsychotic treatment, to identify an association between the antipsychotic therapy (AT) and HPRL in Hashimoto's patients receiving AT, to indentify the association of HPRL and other laboratory parameters in patients with Hashimoto's thyroiditis (HT) and schizophrenia receiving AT.

**Materials and methods:** We studied 17 patients with HT in comorbidity with schizophrenia receiving AT (mean age 46.5±12.8 years). Different laboratory parameters such as anti-thyroid peroxidase antibodies (antiTPO), anti-thyroglobulin antibodies (antiTG), thyroid stimulating hormone (TSH), free thyroxine (FT4), free triiodothyronine (FT3) and prolactin (PRL) were studied.

**Results:** The level of PRL in the studied group was increased 1191 [734.7; 1932.9] mIU/l as well as the levels of antiTG 108.2 [9.2; 221.9] IU/ml and antiTPO 44.5 [3.3; 209.8] IU/ml. Thus, patients were devided into 3 groups by the degree of risk of HPRL from the drugs - without risk, low and high risks. The correlation analysis detected the inverse significant correlation (R=-0,51; p=0,037) between drug-associated risks of HPRL and PRL levels in studied group. At the same time, we detected a positive significant correlation between levels of PRL and FT4 in studied group (R=0,53; p=0,03). The correlations between levels of prolactin and other parameters such as TSH, FT3, antiTPO, antiTG, antiTSH receptor antibodies were not significant.

**Conclusions:** 1.HPRL in our study wasn't associated with receiving of antipsychotic drugs with high risk of it. 2.We have find a significant positive correlation between the levels of prolactin and free thyroxine. It cannot be ruled out that antipsychotics may interfere with prolactin metabolism, which creates a false effect of a positive correlation between prolactin and free thyroxine levels.

\* \* \* \* \*

# A PROSPECTIVE HOSPITAL BASED STUDY ON C-REACTIVE PROTEIN AS A RESPONSE PREDICTOR OF ANTIDEPRESSANT TREATMENT IN DRUG NAIVE PATIENTS OF MAJOR DEPRESSIVE DISORDER

Didakamiwan Khonglah<sup>1</sup>, Rudraprasad Acharya<sup>1</sup>, Arghya Pal<sup>2</sup>, Debes Ray<sup>3</sup> & Malay Ghosal<sup>1</sup>

<sup>1</sup>Medical College & Hospital, Psychiatry, Kolkata, India <sup>2</sup>All India Institute of Medical Sciences, Psychiatry, Raebareli, India <sup>3</sup>Raiganj Government Medical College & Hospital, Biochemistry, Raiganj, India

**Background:** C-reactive protein (CRP) is an acute phase reactant that is implicated in the pathogenesis of Major Depressive Disorder (MDD), due to its role in the execution of various important neurological events, including neurogenesis, mediation of neural plasticity and synaptic transmission. This study was conducted to determine the relation between level of CRP to remission rates after antidepressant therapy.

**Methods:** 50 patients of first episode MDD with no past history of antidepressant exposure and other medical comorbidity were recruited after obtaining consent for Escitalopram therapy. The CRP levels of the patients were evaluated on the day of recruitment and depressive symptoms were monitored using Montgomery Asberg Depression Rating Scale (MADRS) at week 0, 3, 6, and 12. Compliance to pharmacotherapy and disability were assessed using Moriskey Medication Adherence Scale and World Health Organization disability assessment schedule respectively. The patients with low ( $\leq 10 \text{ mg/l}$ ) and high (>10 mg/l) CRP levels were compared for time taken to achieve remission using Kaplan-meier survival analysis.

**Results:** The Kaplan-meier survival analysis showed significantly higher proportion of patients with low CRP levels attained remission than patients with higher CRP levels (Log-rank= 7.594; dF=1; p=0.006). The age, compliance to pharmacotherapy and disability did not significantly affect the remission rates of the patients.

**Conclusion:** Our study confirms that higher levels of CRP can lead to poorer remission rates in patients with MDD after antidepressant therapy and can predict treatment resistance.

\* \* \* \* \*

### DISTINGUISHING BETWEEN NEUROLEPTIC MALIGNANT SYNDROME AND SEROTONIN SYNDROME IN POLYPHARMACY: AN OVERVIEW WITH A CASE REPORT

### Tana Debeljak & Blanka Kores Plesničar

### University Psychiatric Clinic Ljubljana, Ljubljana, Slovenia

We present a case of a 53-year old patient with schizophrenia taking clozapine, amisulpride, venlafaxine, lorazepam, gabapentin and lamotrigine. He was admitted to the ER with rigidity, fever, encephalopathy, sweating, tremor, muscular spasms, hypersalivation, elevated creatinine kinase and myoglobin, leucocytosis and acute kidney failure. We discuss the overlap of symptoms and subsequent management of neuroleptic malignant syndrome and serotonin syndrome. Distinguishing between the two in a clinical setting, when the patient currently takes multiple drugs, can sometimes present a real challenge, since polypharmacy is also an important risk factor for both syndromes. We further discuss clinical difficulties in everyday clinical practice and how personalized medicine approach can alleviate some of them.

**Key words:** neuroleptic malignant syndrome - serotonin syndrome - pharmacogenetics - therapeutic drug monitoring - personalized medicine

\* \* \* \* \*

# SELECTIVE SEROTONINE REUPTAKE INHIBITORS (SSRI) USAGE DURING PREGNANCY

#### Tea Terzić & Blanka Kores Plesničar

University Psychiatric Clinic Ljubljana, Ljubljana, Slovenia

Depressive disorders in pregnancy are common and generate concerns regarding their treatment. The effects of untreated maternal depressive symptoms on preterm birth, low birthweight, fetal growth restriction and postnatal complications are well known. When left untreated, depressive disorders continue postpartum and have a big impact on the patients' functioning. Selective serotonine reuptake inhibitors (SSRIs) are the first choice of treatment of depressive disorders. However, there are some concerns which should be adressed. The aim of this systematic review is to explore the SSRI usage in pregnancy. We studied the latest literature in the PubMed databases and recommendations from the guidelines. Decision to treat depression in pregnancy should be taken with careful consideration of many factors. Clinicians should weigh the use of SSRIs during pregnancy against the risk of untreated depressive disorder.

Key words: perinatal depression - serotonin - SSRI - pregnancy - breastfeeding

\* \* \* \* \*