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**Dynamics of Psychopathological Disorders and Changes in the Functional Activity of Neutrophils in Mercury Intoxication**

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**Introduction:** The overall goal was to determine the degree of mental, neuromuscular and statodynamic functions disorders resulting from toxic effect of mercury and its compounds, to study relationship between the degree of loss of professional ability to work as a result of occupational disease with the presence of complications due to concomitant diseases.

**Objectives:** The relevance of studying the degree of violations of the main indicators of vital activity due to the toxic effect of mercury and its compounds is due to the persisting high level of loss of professional ability to work, and in some cases, and disability of this contingent. Analysis of indicators of primary and repeated disability due to occupational diseases showed that a sufficiently high number of persons recognized as disabled

**Methods:** We studied the dynamics of psychopathological disorders: violation of the emotional sphere, thinking, perception, attention, volitional activity and cognitive functions. The functional and metabolic activity of segmented neutrophils in the peripheral blood of 42 patients, men and women aged 43 to 64 years, and 22 healthy donors were studied.

**Results:** Long-term exposure to chronic industrial mercury intoxication led to persistent disorders of mental functions, suppression of phagocytic activity of neutrophils up to 42.3+/-4.7 per cent and inhibition of the reaction with nitro blue cytosol 4.2+/-0.1 per cent.

**Conclusions:** The revealed violations of the emotional-volitional sphere and cognitive mental functions are possibly associated with the suppression of nonspecific cellular reactions of microphages. Violations of neuroimmune interactions in mercury intoxication require further study.

**Disclosure:** No significant relationships.

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**Association between markers of inflammation and indicators of systemic endotoxemia in endogenous psychosis**

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**Introduction:** The clinical and biological studies indicate the involvement of inflammation in the pathogenesis of endogenous mental disorders. The inflammation markers leukocyte elastase, α1-proteinase inhibitor, and autoantibodies to neuroantigens reflect the severity of the pathological process in the brain. Systemic endotoxemia is a pathological process caused by an excess of endotoxins in the systemic circulation, can be considered as one of the components of the inflammatory process in endogenous psychosis.

**Objectives:** To evaluate the association between systemic inflammation markers and indicators of systemic endotoxemia in patients with endogenous psychosis.

**Methods:** The study included 25 patients aged 23-49 with endogenous psychoses (F20, F25) and 25 healthy people. The severity of symptoms was assessed using PANSS. We detected the activity of leukocyte elastase and α1-proteinase inhibitor, antibodies to neuroantigens, endotoxin (ET) concentration, and antibodies to endotoxin (aET) in serum.

**Results:** In 24% of cases, an increase of inflammation markers activity, ET concentration, and aET deficiency were observed (p<0.05), which is an unfavorable factor that aggravates the clinical course of the disease. In 76% of cases, ET concentration remained within control values (p>0.05) but associated with different levels of

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**“I want to kill my mother”**

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**Introduction:** The incidence of Anti-NMDA receptor encephalitis is 1.5 per million population per year but it has only been described sporadically in the paediatric population. The median age of onset is 21 years old. In children, seizures, abnormal movements, insomnia, and irritability are more frequently identified than psychosis or abnormal behavior. Early detection and treatment can improve treatment outcomes.

**Objectives:** Presentation of a case of a paediatric patient with Anti-NMDA receptor encephalitis displaying homicidal behavior towards her family members

**Methods:** Case report

**Results:** A 12 year old with no significant past psychiatric and medical history, was brought in by police to the hospital after she attempted to stab her mother with a knife. She had low grade fever, headaches and lethargy prior to presentation. Organic workup revealed serum and CSF anti-nmda receptor to be positive. She received early treatment with steroids and intravenous immunoglobulins and no longer harboured further homicidal ideations.

**Conclusions:** Initial suspicion of anti-NMDA receptor encephalitis should be raised and early auto-immune workup performed in paediatric patients presenting with acute change in behavior especially in young females with no past medical or psychiatric history

**Disclosure:** No significant relationships.

**Keywords:** Anti-NMDA receptor encephalitis; paediatric auto immune encephalitis; homicidal ideations