

aET, which is likely to be a consequence of previous endotoxin aggression. There were correlations between ET concentration and antibodies to neuroantigens S-100B and MBP. We also revealed the association between the activity of the inflammatory marker with the severity of clinical symptoms in patients.

**Conclusions:** Results suggest the relationship between systemic inflammation markers and indicators of systemic endotoxemia and their involvement in the pathogenesis of endogenous psychosis.

**Disclosure:** No significant relationships.

**Keywords:** endogenous psychosis; systemic inflammation; systemic endotoxemia; antiendotoxin antibodies

## EPV1108

### Immunoregulatory and neuroprotective activity of ovocystatin

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**Introduction:** Ovocystatin has beneficial properties for cognitive function in young rats and might prevent aging-related cognitive impairment in older animals, as well as reduce memory decline in APP/PS1 mice model.

**Objectives:** Our study aimed at assessing the impact of ovocystatin on microglia activation and neurogenesis.

**Methods:** Immunoactivation: Mouse wild type microglia were stimulated with ovocystatin at dose of 100 micrograms/ml. The effect of ovocystatin on nitric oxide production and interleukin 1 beta secretion were determined. Neurogenesis: Primary rat hippocampal neurons of H19-7 cell line was used. The impact of ovocystatin on proliferation, nitric oxide production, and expression of markers of neurogenesis: microtubule-associated protein 2 (MAP2, isoforms A/B and C/D) and Synapsin 1, were determined.

**Results:** It was shown that ovocystatin does not stimulate microglial cells to produce inflammatory mediators. Whereas, no toxic effect of ovocystatin (1-100 ug/ml) on H19-7 cells viability, and dose-dependent down-regulation of proliferation were demonstrated. It was also shown that in primary hippocampal neurons of H19-7 cells incubated with ovocystatin (100 micrograms/ml), the expression level of MAP2 C/D (75kDa) - characteristic form of immature neurons is unchanged. However, the increased expression of MAP2 A/B protein (280 kDa) - characteristic for mature neurons was observed after 6 and 24h incubation with ovocystatin. Relatively to MAP2 A/B, increased expression of synapsin 1 was observed.

**Conclusions:** The ovocystatin might be a potential activator of molecular mechanisms in primary hippocampal neurons, participating in regulation of neurogenesis. Nevertheless, further studies are needed.

**Disclosure:** No significant relationships.

**Keywords:** ovocystatin; Immunoactivation; Neurogenesis

## EPV1109

### Immunology and psychosis: 22q11.2 syndrome as a model of study

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**Introduction:** The 22q11.2 deletion syndrome (22q11DS) defines a set of developmental abnormalities due to a loss of genetic material. Phenotypic expression is highly varied. The immunological alterations that present as a severe combined immunodeficiency and the neurodevelopmental alterations stand out, especially the psychotic symptoms. It is the best described genetic alteration for the development of psychosis, presenting up to 30% of patients with compatible symptoms, with various hypotheses that justify it.

**Objectives:** General objective:

1. Justify that SD2q11 can be used as a model for human research on the origin of psychosis.

**Specific objectives:** 1. Describe the pro-inflammatory state present in SD2q11.

2. Describe differences at the immunological level in SD2q11 among those patients with presence of psychotic symptoms of those who do not present them.

3. Describe possible biomarkers.

**Methods:** A systematic review of the literature in the last 5 years using electronic resources (PubMed and WOS) until June 2021 following the PRISMA recommendations.

**Results:** Three original articles were reviewed. There is a very marked pro-inflammatory state in 22q11DS patients with psychotic symptoms. They present an increase in subpopulations of CD4. The IL-17 is important in the formation in primitive stages of the hippocampus, its ease of breaking the blood-brain barrier (BBB). The neutrophil / lymphocyte ratio is presented as a possible biomarker to predict patients at high risk of developing psychosis.

**Conclusions:** There is sufficient evidence that patients with 22q11DS can be used as a research model regarding possible hypotheses about the genesis of psychosis.

**Disclosure:** No significant relationships.

**Keywords:** Digeorge syndrome; psychosis; schizophrenia; inflammation

## EPV1110

### Leukocyte elastase, a1-proteinase inhibitor, and autoantibodies to neuroantigens in diagnostics of endogenous depressive disorders

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