Article: 1751

Topic: EPV31 - e-Poster 31: Schizophrenia

Omega-3 Polyunsaturated Fatty Acids Can Prevent Relapse in First-episode Schizophrenia: the Results of Offer Trial

T. Pawelczyk<sup>1</sup>, M. Grancow<sup>2</sup>, M. Kotlicka-Antczak<sup>1</sup>, A. Pawelczyk<sup>1</sup>

<sup>1</sup>Department of Affective and Psychotic Disorders, Medical University of Lodz, Lodz, Poland; <sup>2</sup>Child and Adolescent Psychiatry Ward, Central Teaching Hospital Medical University of Lodz, Lodz, Poland

Introduction: Omega-3 polyunsaturated fatty acids (n3-PUFA) are major constituents of the neural membranes. N-3 PUFA take part in several neuronal mechanisms, including modulation and control of neurobiological processes, such as ion channel and receptor activity, neurotransmitter release, synaptic plasticity, second messenger pathways and neuronal gene expression. Deficiency in n-3 PUFA has been postulated in the etiology of schizophrenia. Intervention trials supplementing n-3 PUFA were conducted to assess the efficacy of n-3 PUFA in reducing symptom severity in exacerbations of chronic schizophrenia and acute phase of first-episode schizophrenia. The results were n-3 PUFA were found to prevent conversion to psychosis in clinical high risk populations.

Objectives: To assess the efficacy n-3 PUFA as add-on treatment in relapse prevention in first-episode schizophrenia patients.

Methods: We conducted a randomized, double-blind, placebo-controlled, parallel-group single-center 6 months augmentation trial of either 2,2 g per day of n-3 PUFA or placebo added on to an adjustable dose of antipsychotic medication in first-episode schizophrenia patients. Intervention was composed of either 1320 mg/day of eicosapentaenoic acid plus 880 mg/day of docosahexaenoic acid or placebo olive oil. The relapse rate was observed during a follow up period of 12 months.

Results: 71 patients completed the study (41% female). Relapse was observed in 4 patients (11.4%) enrolled in n-3 PUFA group and 12 patients (33.3%) in placebo group over a period of 12 months. The difference was statistically significant (log rank test, **p=0.0225**).

Conclusions: The results indicate, that n-3 PUFA add-on therapy can effectively prevent relapses in first-episode schizophrenia patients.