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THE COMPARISON OF β-ENDORPHIN AND CGRP LEVELS IN PATIENTS WITH SEVERE SYMPTOMS OF SCHIZOPHRENIA AND IN STABLE MENTAL STATE AFTER TREATMENT

M. Urban-Kowalczyk[1], *J. Śmigielski*[2], *J. Rabe-Jabłońska*[1]

[1]Department of Psychotic and Affective Disorders, [2]Department of Informatics and Medical Statistics, Medical University of Lodz, Lodz, Poland

Introduction: Links between endorphins and dopaminergic transmission have not been fully explored in schizophrenia.
Objectives: Both endorphins excess and deficiency were postulated in schizophrenia. CGRP is probably involved in dopaminergic transmission.
Aims: Evaluation of β-endorphin and CGRP blood concentrations before and after treatment of severe schizophrenia.
Methods: 70 patients treated with various antipsychotics, with severe symptoms of schizophrenia (51 with positive symptoms, 19 with negative symptoms), 15 first degree relatives and 44 healthy controls were included to the study. β-endorphin and CGRP blood concentrations were measured in severe schizophrenia and in stable mental state. The results were compared with relatives and controls.
Results: β-endorphin and CGRP concentrations in patients with negative symptoms were higher than in relatives and controls. β-endorphin levels in patients with positive symptoms were lower than in patients with negative symptoms ($p< 0,000005$) and controls ($p< 0,0006$). No significant changes in CGRP concentration were found in patients samples. CGRP levels in these samples were independent of treatment but they were significantly higher than in relatives and controls. After the treatment β-endorphin levels decreased in patients with negative symptoms ($p< 0.0001$) and increased in patients with positive symptoms ($p< 0,000002$). No differences in β-endorphin concentration between patients in stable mental state, relatives and controls were found.
Conclusions: Effective antipsychotic treatment results in "normalization" of β-endorphin level. Specific changes in β-endorphin concentration could be involved in dopaminergic transmission and related to some symptoms of schizophrenia.

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