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## NEUROTROPHIC PROTEINS AND SYMPTOM PROFILE IN PSYCHOTIC DISORDERS

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**Background:** Psychotic disorders are highly prevalent and are treated with antipsychotics. There are no biological markers to predict or measure treatment effects. Research to neurotrophic proteins Brain Derived Neurotrophic Factor (BDNF) and S100B demonstrated association with psychotic symptoms and suggested association with treatment outcome and symptomatology.

**Objectives:** Investigate the relevance of neurotrophic proteins BDNF and S100B in patients with psychotic disorders treated with antipsychotics.

**Aims:** Primary objective is to investigate the relationship between serum levels of BDNF and S100B and symptomatology at baseline and after six weeks of treatment. Furthermore, a detailed evaluation of symptom profile and treatment effect is performed.

**Methods:** 80 patients with acute and chronic psychotic disorder were evaluated during six weeks while receiving antipsychotic treatment of any kind. Symptomatology was assessed using CASH, PANSS and CGI-S/I. Biochemical parameters were determined at baseline and after six weeks. Symptomatology and treatment effect were related to biochemical results.

**Results:** Preliminary analyses show an overall treatment response of 19% (reduction of PANSS). A significant difference was found at baseline between patients with first-episode psychosis and patients with relapse or chronic psychosis (BDNF 12,4 vs. 21,7µg/l  $P \leq 0,01$ , S100B 0,1055 vs. 0,05937 µg/l,  $P < 0,05$ ). During treatment, serum levels of neurotrophic proteins returned to normal values in both groups.

**Conclusions:** Six weeks of antipsychotic treatment results in a modest symptomatic improvement. In subgroups with first episode psychosis, S100B levels are higher and BDNF levels are lower. The normalization of both serum levels suggests an effect of antipsychotic treatment on brain neurochemical processes.