

PW01-31 - EARLY INCREASE OF PERIPHERAL BDNF IN MAJOR DEPRESSION DURING ANTIDEPRESSANT TREATMENT PREDICTS LATE BDNF INCREASE WITH HIGH SENSITIVITY AND SPECIFICITY

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Objective: In patients with major depression (MD), mean BDNF serum concentration increases during antidepressant treatment. This increase has been associated with symptom amelioration. In a previous analysis of the time course of BDNF serum concentration, we could show a high association between early and final changes of BDNF levels during antidepressant treatment. The aim of this study was to analyse the predictive value of early BDNF changes for BDNF changes after 4 to 6 weeks of antidepressant treatment in individual patients with MD.

Methods: Forty-six patients with MD according to DSM-IV were included in this study. All patients were treated as clinically indicated. Depression severity was assessed by HAMD-17 by trained raters from baseline to week 6 in weekly intervals. Serum at each visit (baseline, V1-V6) was obtained from whole blood after centrifugation with 1.000 x g for 10 minutes. Aliquots were frozen at -80°C until analysis. BDNF serum concentration was determined with ELISA (R&D Systems). We determined sensitivity and specificity of early changes (from baseline to weeks 1 and 2) of BDNF serum concentration to BDNF changes in the later course (from baseline to weeks 4 to 6) of treatment.

Results: BDNF increase from BL to week 2 predicted BDNF increase from baseline to week 5 with high sensitivity (81%) and specificity (73%). Further analyses revealed comparable results (data not shown).

Conclusions: These results suggest that early BDNF increase is predictive for final BDNF increase in individual patients with MD during antidepressant treatment.