

Psychopathology and Serum Bdnf in First-episode Psychosis

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INTRODUCTION

The brain-derived neurotrophic factor (BDNF) is a neurotrophin related to the differentiation and survival of neurons as well as synaptic plasticity during brain development. It has been found reduced levels of BDNF in first-episode psychosis (FEP). There are contradictory results regarding its relation to psychopathology.

OBJECTIVES

Establishing the relationship between serum BDNF levels in a group of 28 inpatients with FEP and psychopathology measured with the Positive and Negative Syndrome Scale (PANSS).

METHODS

BDNF serum levels at admission, discharge, three, six, nine and twelve months were related with psychopathology measured with the PANSS (positive, negative and general psychopathology subscales). Data are present as mean.

RESULTS

At admission PANSS scores were high, decreasing progressively in the following determinations due to psychopathological improvement, although over the time remained higher scores on the negative than in the positive subscale. At admission: PANSS-positive 22.78; PANSS-negative 17.85; PANSS-general psychopathology 39.67; at discharge: PANSS-positive 8.51; PANSS-negative 11.07; PANSS-general psychopathology 20.11; at six months: PANSS-positive 8.04; PANSS-negative 10.91; PANSS-general psychopathology 19.56; at twelve months: PANSS-positive 7.80; PANSS-negative 10.95; PANSS-general psychopathology 19.75. There is a negative correlation between BDNF levels and PANSS negative scores at admission ($r=-0.337$), with a trend towards significance ($P=0.079$). This correlation disappears at discharge because of psychopathology improvement and is not maintained in the following determinations.

CONCLUSIONS

Lower serum BDNF levels may be associated with worse clinical symptoms, especially negative symptoms. Further studies with a larger sample are needed to replicate our results.