EPP015

The BDNF/proBDNF ratio as a predictor of antidepressant treatment response in adolescent girls

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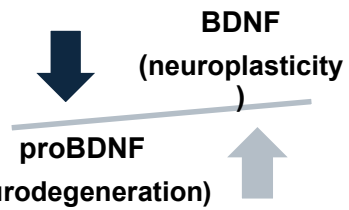
BACKGROUND

- Decreased levels of serum brain-derived neurotrophic factor (BDNF) and increased levels of its precursor (proBDNF) have been associated with depressive symptoms in adults.
- The BDNF/proBDNF ratio has been suggested as a possible biomarker of depression state and treatment response among adults with depression.

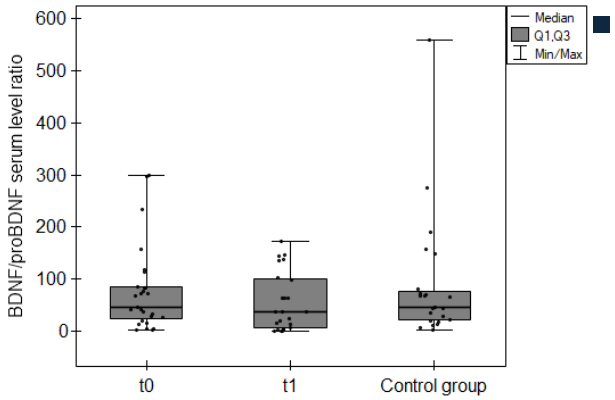


- No study has analyzed BDNF/proBDNF serum ratio levels in adolescent patients treated for depression.

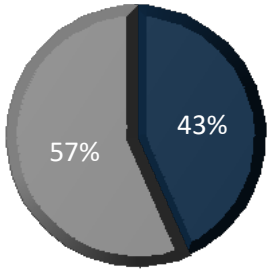
OBJECTIVES

1. To verify the changes in serum BDNF/proBDNF ratio levels during the course of antidepressant treatment in adolescents with depression in relation to healthy control.
2. To investigate whether this parameter could predict the antidepressant treatment outcome.

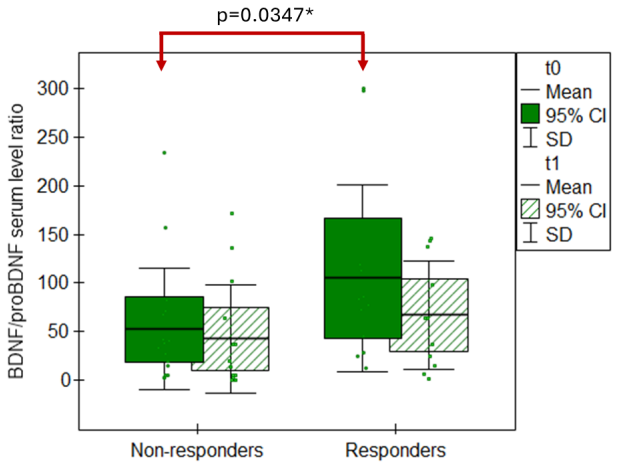
RESULTS



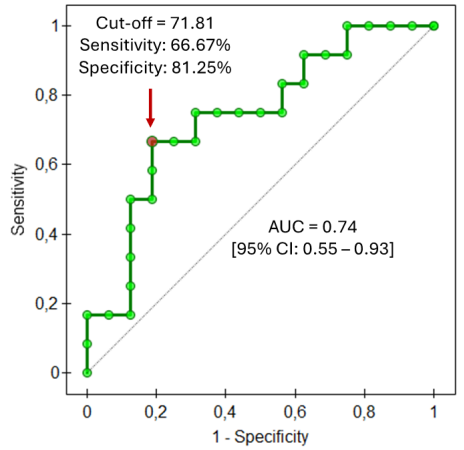
No significant differences in BDNF/proBDNF ratio between the studied and control groups



Response to antidepressant treatment in the studied group



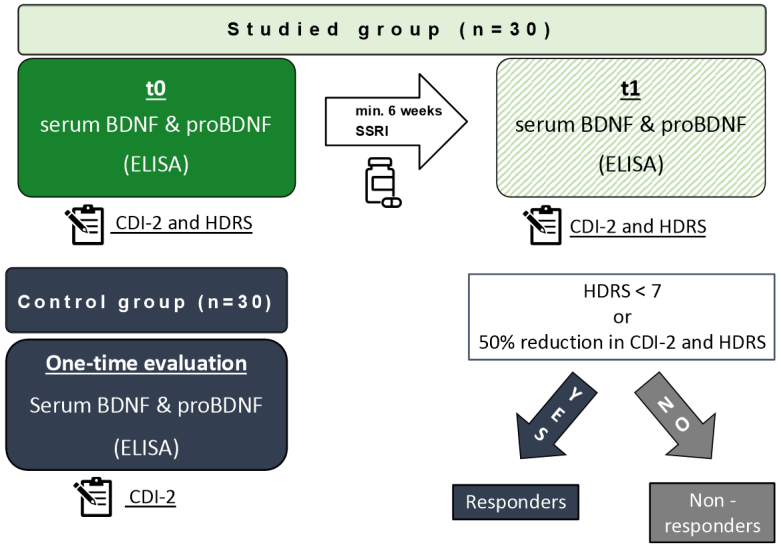
Significant difference in the initial BDNF/proBDNF ratio between responders and non-responders



The initial BDNF/proBDNF ratio as a predictor of antidepressant treatment response

MATERIALS & METHODS

30 female adolescents aged 11-17 diagnosed with a first-lifetime depressive episode assessed before (t0) and after (t1) the treatment with sertraline / fluoxetine and compared with 30 healthy controls.



CONCLUSIONS

Higher levels of a pretreatment BDNF/proBDNF ratio could be considered a biomarker predictive of a successful antidepressant treatment response among adolescent girls.