AS18-03 - BIOLOGICAL MARKERS OF DEPRESSION TREATMENT OUTCOME

J.Raboch, Z.Fisar, M.Zverova, E.Kitzlerova

Charles University in Prague, Prague, Czech Republic

Aims: We have searched biological markers of affective disorders and factors which are able to predict a response to treatment with antidepressants.
Methods: We have measured several biochemical parameters (serotonin uptake, monoamine oxidase activity, homocysteine, cortisol, melatonin, prolactin, brain derived neurotrophic factor, glycogen synthase kinase-3, citrate synthase, complexes of respiratory chain, respiratory rate) in peripheral blood from 50 depressive patients during treatment. Patients were clinically evaluated (HRSD-21, CGI-S) and blood samples were collected both before starting treatment and at the end of trial.
Results: A significant negative correlation between serotonin uptake efficiency and severity of depression was found. Monoamine oxidase activity seems to be highly nonspecific biochemical parameter. Small effects were observed on GSK-3 activity and CREB activity. Citrate synthase activity was decreased in depressive subjects before treatment but not after treatment. Complex II activity was decreased both before and after treatment. Complex IV activity was significantly lower in nonresponders.
Conclusions: Our results indicate important role of mitochondrial enzymes in intracellular processes that are related to affective disorders. Our experiments shown that serotonin transporter, monoamine oxidase, citrate synthase, Complex II and IV of the electron transport chain are the most significantly affected proteins both by depressive disorder and by antidepressants.
This research was supported by grant No MSM0021620849, Ministry of Education

https://doi.org/10.1016/S0924-9338(12)74003-8 Published online by Cambridge University Press