

Abstract

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Fatty acids and sleep in depressed inpatients.

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BACKGROUND: Sleep disturbances belong to the most frequent symptoms of depression. Low concentrations of n-3-fatty acids might represent one determinant within that process.

OBJECTIVE: Therefore, the aim of the study was to examine the relationships between serum fatty acid concentrations and severity of sleep disturbances in depressives.

METHODS: Serum fatty acids were measured gaschromatographically in 118 depressive inpatients (51 males; 67 females; age 45.4+/-12.0 years), divided into subgroups according to three degrees of sleep disturbances (BDI-item).

RESULTS: At admission and discharge, we found significant negative correlations between the degree of sleep disturbances and fatty acid concentrations (myristic, palmitic, palmitoleic, oleic, linoleic, eicosadienoic and docosahexaenoic acid). At both assessments palmitoleic and eicosadienoic acids had the strongest connections with sleep performance. Palmitoleic and oleic acid seem to be especially important for sleep disorders, may be due to their function as precursors of the sleep inducing oleamide. Linoleic and eicosadienoic acid could be helpful for maintaining sleep because they are precursors of the sleep mediator PGD2.

CONCLUSION: In contrast to our hypothesis, there is not only a significant lack of n-3 fatty acids but also of special monoenoic and n-6 fatty acids in sleep-disturbed depressives.

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