MEETING ABSTRACT

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Increased levels of ethane, a non-invasive, quantitative, direct marker of n-3 lipid peroxidation, in the breath of patients with schizophrenia

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Background

This study directly assessed whether there was a change in the level of exhaled ethane, which provides a non-invasive, quantitative, direct measure of n-3 lipid peroxidation, in the breath of patients with schizophrenia.

Materials and methods

Samples of alveolar air were obtained from 20 subjects with schizophrenia and 23 age- and sex-matched healthy control subjects. The air samples were analyzed for ethane using mass spectrometry.

Results

The mean level of ethane in the schizophrenia sample (5.15 (S.E. 0.56) ppb) was significantly higher than that of the healthy controls (2.63 (S.E. 0.31) ppb; $p < 0.0005$). A further sub-analysis showed that nicotine dependence was unlikely to be the cause of this difference.

Conclusions

These results suggest that the measurement of exhaled ethane levels may offer a non-invasive direct marker of increased n-3 lipid peroxidation in schizophrenia.

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