Abstract

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Depressive symptoms are independently correlated with lipid peroxidation in a female population: comparison with vitamins and carotenoids.

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OBJECTIVE: Lipid peroxidation (LPO) is involved in oxidative tissue injuries. The present investigation examined the association between LPO and psychological depressive symptoms.

METHODS: A cross-sectional study was conducted on 66 female volunteers aged 38-70. Lipid peroxides (LOOH) in serum were evaluated by hemoglobin-methylene blue (Hb-MB) method; additionally, serum antioxidants were also detected. To assess depressive symptoms, the Center for Epidemiologic Studies Depression (CES-D) Scale and a subscale in the 28-item General Health Questionnaire (GHQ) were applied.

RESULTS: LOOH concentration displayed a significant positive correlation with CES-D and GHQ depression scores. Multiple regression analysis was performed in which LOOH concentration served as a dependent variable and CES-D scores and antioxidants as independent variables. Consequently, CES-D scores demonstrated significant positive correlation with LOOH.

CONCLUSIONS: The positive relationship between depressive symptoms and LPO in a female population may support the hypothesis that LPO may affect depressive symptoms.

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