

GLUTATHIONE LEVELS AND SCHIZOTYPY SCORES IN UNAFFECTED FIRST-DEGREE RELATIVES OF PATIENTS WITH SCHIZOPHRENIA

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Introduction: Several studies have shown a glutathione (GSH) deficit in patients with schizophrenia. It may in part arise from a genetically compromised synthesis of GSH, the major cellular antioxidant and redox-regulator. First-degree relatives of patients with schizophrenia share many susceptibility genes of this disease.

Objectives: The objectives of this study were to determine plasma glutathione levels in patients with schizophrenia and their unaffected first-degree relatives of compared to healthy controls and to examine the correlation between glutathione levels and schizotypy scores in unaffected relatives.

Methods: We included 60 patients with schizophrenia, 33 of their unaffected siblings and 30 healthy controls with no family psychiatric history. The blood glutathione levels: total (GSht), reduced (GSHr), and oxidized glutathione (GSSG) were measured by spectrophotometry. Schizotypy scores were assessed by the schizotypal personality questionnaire (SPQ).

Results: GSht and GSHr were significantly lower in patients than in controls, whereas there was no difference in glutathione levels between unaffected relatives and healthy controls. Moreover, no correlation was found between glutathione levels and schizotypy scores in unaffected relatives of patients with schizophrenia.

Conclusions: These results reveal that unaffected relatives of patients with schizophrenia didn't have a GSH deficit. In the same group, no correlation was found between glutathione levels and schizotypy scores which considered a vulnerability marker for schizophrenia. These findings disagree with our hypothesis that GSH deficit could be a biological marker of vulnerability to schizophrenia. However, further studies are necessary to explore this hypothesis.