Evaluation of the Influence of some Antioxidant Agents in Patients with Schizophrenia: A Case–Control Study

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Abstract

Schizophrenia is a psychical disorder with abnormality in social behavior and failure to understand what is real. Despite considerable efforts that have been made from a lot of researchers, there are still delays in the diagnosis and treatment of schizophrenia. Therefore, this study has been focused to investigate the expected association between the levels of antioxidant agents (Vitamin E, Vitamin A, glutathione [GSH], and uric acid) and the risk of schizophrenia. Levels of these variables were determined in sera of 60 patients with schizophrenia, and then, the variations in their levels were analyzed in comparison with 60 healthy volunteers to try to predict of occurrence and progression of disease. The results obtained showed a significant decrease in the levels of Vitamin E, GSH, uric acid, and urea, in contrast to non-significant change in the levels of Vitamin A in schizophrenic patients compared to the healthy group. Data analysis also revealed the presence of a valuable correlation between most of variables in schizophrenic patients. Accordingly, it can be suggested that these variables may have a vital role and prognostic value against schizophrenia. Furthermore, it can be suggested that vitamin supplementation, in particular Vitamin E, may play a crucial role in the treatment of schizophrenia or reduce the risk of schizophrenia. The real mechanism responsible for the variations in the levels of these parameters in patients with schizophrenia is unclear and requires additional evaluation by further comprehensive studies.