

The relation of homocysteine levels with deficit syndrome and working memory in schizophrenic patients

Cengiz Tuğlu, Sevilay Özcan, Yasin Erdoğan, Nejdett Süt, Erdal Vardar, Ercan Abay.

Abstract

Objective: There are many theories about etiology of schizophrenia and many studies are going on to find out a biologic determinant specific for schizophrenia. Single carbon metabolism theory has been suggested for the etiology of schizophrenia. There are also many data about a defect in homocysteine metabolism and increased levels of homocysteine in schizophrenic subjects but the correlation of hyperhomocysteinemia with the clinical reflections and symptom dispersion of schizophrenia has not been studied yet. **Methods:** For forty-one schizophrenic patients, clinical assessments were performed. The patients were divided into two groups, as deficit syndrome group and nondeficit syndrome group, using the deficit syndrome chart. Various test batteries have been applied to all patients to assess the clinical symptomatology and working memory. Serum homocysteine, vitamin B12, and folic acid levels were measured concurrently. **Results:** Homocysteine levels were higher in the study group and mild to moderate hyperhomocysteinemia has been observed at the sample group independent folic acid levels. The homocysteine levels and clinical scale scores did not correlate statistically but folic acid levels did with negative symptomatology and functional disturbance. **Conclusion:** Serum homocysteine levels were elevated in both male and female schizophrenia patients. Hyperhomocysteinemia with the deficit syndrome as well as working memory did not show a statistically significant correlation.

Key words: schizophrenia, homocysteine, folic acid, deficit syndrome, working memory.

Şizofreni hastalarında homosistein düzeyinin eksiklik sendromu ve çalışma belleği ile ilişkisi