

P03-238

VITAMIN D, PARATHYROID HORMONE, SERUM CALCIUM AND PHOSPHORUS IN PATIENTS WITH SCHIZOPHRENIA AND MAJOR DEPRESSION

H. Jamilian

Psychiatry, Arak University of Medical Sciences, Arak, Iran

Introduction: Vitamin D deficiency has been associated with an increased risk of depression and schizophrenia in some studies. However, a few epidemiological studies do not show consistent results.

Objectives: Comparing serum level of Vitamin D, parathyroid hormone, Calcium, and phosphorus in schizophrenic and depressed patients with healthy subjects in Iranian people.

Methods: In a cross-sectional study, 100 patients with schizophrenia and 100 major depressed ones in Arak-Iran from October 2009 to April 2010, and also 100 healthy subjects were enrolled. After informed consent, serum levels of Vitamin D, Calcium, Phosphorus, and parathyroid hormone were assessed by using routine laboratory methods.

Data was analyzed by using SPSS V17, one-way ANOVA, the post-hoc test of Tukey and also in general linear models.

Results: The three groups were different in Vitamin D (PValue < 0.001). Post-hoc analysis of Tukey showed that Vitamin D level of healthy participants was significantly higher than depressed patients (PValue < 0.001) and schizophrenics (PValue = 0.001) while there was no significant difference between Vitamin D levels in depressed and schizophrenic patients (PValue = 0.563). Serum levels of Ca, P and PTH were the same in three groups.

Conclusions: Our findings suggest that Vitamin D affects the brain independent of hormonal pathways which regulate serum level of calcium. Lack of difference between the serum levels of Vitamin D in schizophrenia and depression suggests that the independent effect of Vitamin D in the brain is a general effect and is not specific for a region or pathway in the brain.