



Cognitive Status Impairment and Depression Rate in Multiple Sclerosis (MS) Patients

N. Khizanishvili, M. Beridze, O. Samushia, E. Devidze, T. Kherkheulidze,
N. Kvirkvelia

The First University Clinic of Tbilisi State Medical University



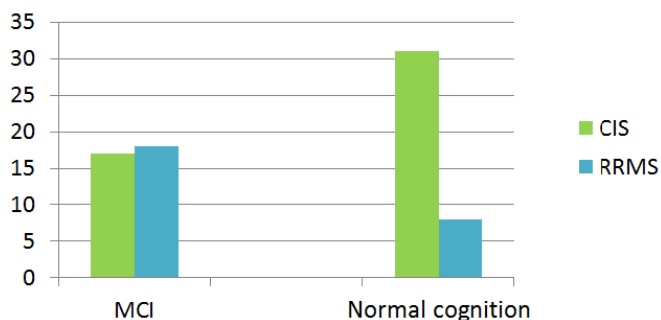
Objective: To investigate cognitive status impairment and depression rate in MS patients within 24 months from the first symptom.

Methods: 74 patients (42 females and 32 males, average age – 28.8 years) were investigated, which were divided into two groups: 48 patients were diagnosed with Clinically Isolated Syndrome (CIS), and 26 patients were diagnosed with Relapsing Remitting Multiple Sclerosis (RRMS), according to the 2010 McDonald criteria. Patients were matched by sex, age, disease longevity and education. Cognitive status and mood evaluated by Mini Mental State Examination (MMSE) and by Beck Depression Inventory II (BDI-II) tests. Control comprised 15 healthy volunteers matched by sex and age. Statistics performed by SPSS 11.0.

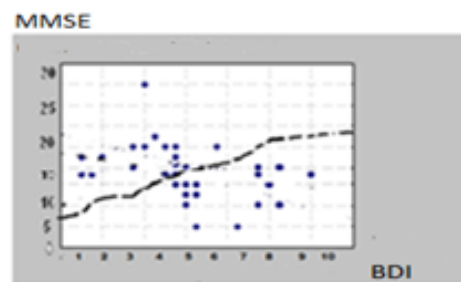
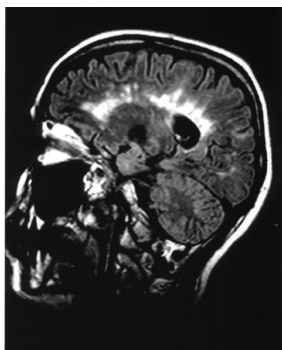
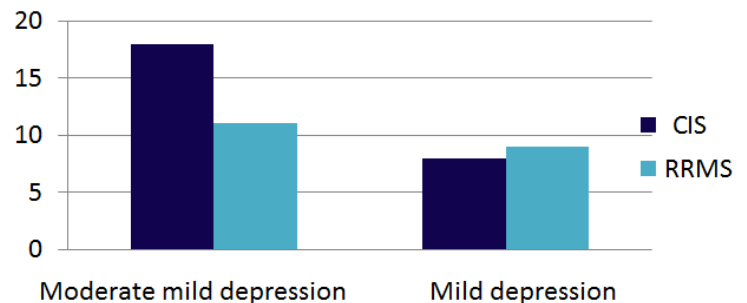
Results: MCI (Mild Cognitive Impairment) - (MMSE = 21 ± 2.5) found in 17 (35.4%) of 48 CIS patients, and in 18 (69.2%) of 26 RRMS patients, Normal Cognition (MMSE= 26 ± 1.5) found in 31 (64.6%) of CIS and 8 (31.8%) - RRMS patients.

Moderate Minimal Depression (BDI=0-13) found in 18 (37, 5%) of 48 CIS- and 11 (42.3%) RRMS- patients; Mild depression (BDI=14-19) detected in 8 (16.7%) of CIS and 9 (34.6%) - RRMS patients. Multivariate Logistic regression (entered stepwise model) found the significance of BDI score ($p < 0.05$) and longevity of disease ($p < 0.05$) in regard with MMSE score. **Conclusion:** cognitive status impairment and depression rate are related to the longevity and the severity of the disease.

Cognition state



Depression rate



$R = +0.34; p < 0.05$