COGNITIVE DYSFUNCTION IN PATIENTS WITH MULTIPLE SCLEROSIS, CORRELATION WITH MOTOR DISABILITY SCORE AND MR IMAGING LESIONS OF BRAIN

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Background: Cognitive dysfunction is seen in approximately 50% of the patients with multiple sclerosis (MS). We aimed to determine the frequency of cognitive dysfunction in patients with MS. To correlate cognitive impairment with MR markers of cerebral injury and to study the correlation of motor disability with cognitive impairment.
Methods: Patients with relapsing remitting MS (RRMS) diagnosed based on Mc Donald criteria attending a tertiary care centre between Jan 2010 to date were included. Patients with age >55 yrs, psychiatric illness and other etiology of dementia were excluded. Patients underwent cognitive evaluation with Mini mental state examination (MMSE), Addenbrooke's cognitive examination and revised (ACE-R). Motor scores were assessed with Expanded disability status scale (EDSS). MRI brain with 3.0T using, T2, FLAIR, volumetric studies and T1contrast was performed on all patients.
Results: Total 22 patients of RRMS were recruited. Male female ration was 7:15. Mean EDSS score was 2.90±1.63, Mean MMSE score was 28.88±2.03 and mean ACE-R score was 88.72±7.02. Among them, three (13.6%) had mild cognitive impairment, seven (31.8%) had dementia. Pearson Correlation Coefficient showed small inverse correlation between EDSS and ACE-R. MRI brain showed multiple T2 lesions (13), T1 black holes(8),corpus callosal atrophy (10).
Conclusions:
1) Most of our patients do not have complaints but had cognitive impairment on examination. 2) EDSS scores were inversely associated with ACE-R . 3) Patients had cognitive impairment in the domains of fluency, attention visuo spatial and memory. 4) Patients with cognitive impairement had multiple lesions on T2 with T1black holes and corpus callosal atrophy