Cognitive impairment is seen in patients with paediatric multiple sclerosis in more than 30% of cases. Altered functions with variable frequency are: attention, language (receptive, verbal fluency, naming), visual-spatial and motor functions, spatial memory, executive functions and abstract reasoning. The aim of this study is to determine the cognitive functions disorders in children with multiple sclerosis.

Methods A total of 21 individuals with paediatric MS (19 girls, 2 boys), ranging from 10–17 years of age (SD=14.90 ± 18.6) completed initial and follow-up neuropsychological testing at yearly interval. All the patients were given WISC-R, Raven’s Standard Progressive Matrices, Wisconsin Card Sorting, Stroop Test, Line Orientation Test and Verbal Fluency.

Results 55% of the patients had Interferon therapy, First attack age was 12.92 ± 2.36, total number of attacks was 2.68 ± 2.19. IQ assessment was as follows: 19.1% (n = 4) borderline, 47.6% (n = 10) average, 33.4% (n = 7) high average. After interferon therapy, patients showed increased reponse time with less mistakes in Stroop test (p < 0.05), there was an increase of vocabulary scores in Verbal Fluency Test, being is still behind the scores of normal children. Visual-spatial perception impairments became evident right after the attacks. Symptoms of depression have been found in the 25% of the patients. There is a correlation (r: 0.82) between number of attacks, cognitive loss, and depression.

Conclusion Cognitive impairment has a negative impact on patient’s life limiting social, academic activities. Early treatment with disease-modifying drugs seems to be advisable in order to prevent or delay the development of cognitive impairment.