

## THE PREVALENCE OF COGNITIVE IMPAIRMENT AMONG HUNGARIAN PATIENTS WITH RELAPSING-REMITTING MULTIPLE SCLEROSIS AND CLINICALLY ISOLATED SYNDROME

Daniel Sandi<sup>1</sup>, T. Biernacki<sup>1</sup>, D. Szekeres<sup>1</sup>, J. Füvesi<sup>1</sup>, Zs. T. Kincses<sup>1</sup>, Cs. Rózsa<sup>2</sup>, K. Mátyás<sup>3</sup>, K. Kása<sup>2</sup>, J. Matolcsi<sup>2</sup>, D. Zboznovits<sup>2</sup>, A. Pyreschitz<sup>2</sup>, É. Langane<sup>1</sup>, L. Vécsei<sup>1,4</sup>, K. Bencsik<sup>1</sup>

<sup>1</sup>*Department of Neurology, Faculty of General Medicine, University of Szeged, Hungary*

<sup>2</sup>*Department of Neurology, Jahn Ferenc Dél-Pest Hospital, Hungary*

<sup>3</sup>*Department of Neurology, Markhot Ferenc Hospital, Hungary*

<sup>4</sup>*MTA-SZTE, Neuroscience Research Group, Hungary*

[sdcroaker@gmail.com](mailto:sdcroaker@gmail.com)

**Introduction:** Cognitive impairment (CI) is a frequent symptom of multiple sclerosis (MS); its prevalence is reported to be 43-70%. The cognitive decline is not global: information processing speed, visual and verbal memory are the most frequently affected domains. We aimed to determine the prevalence of CI among the relapsing-remitting MS (RRMS) and clinically isolated syndrome (CIS) patients in Hungary and to assess the differences between genders and patients with different educational levels.

**Patients and methods:** Five-hundred and fifty-four CIS and RRMS patients were enrolled to our study, 405 was treated at the Department of Neurology of the University of Szeged; 111 at the Jahn Ferenc Dél-Pest Hospital in Budapest and 38 at the Markhot Ferenc Hospital in Eger. We used the BICAMS battery to assess their cognitive state. For statistical analysis we used Chi square and Fisher exact tests.

**Results:** Three-hundred and eighteen (57.2%) patients had CI. CI was significantly ( $p < 0.001$ ) more frequent among men (70.1%) than women (51.6%). While among men, there was no difference between patients with different educational levels, the prevalence of CI among women with higher education was significantly ( $p < 0.001$ ) less common (42.5%) than women with lower education (62.5%).

**Discussion:** Our prevalence data is similar to those reported in the literature (43-70%). We found that men are more vulnerable to CI than women in MS, as was reported by a recent study. We are the first to report, that the higher cognitive reserve is only a protective factor among female patients.