

Researchers publish one of the longest longitudinal studies of cognition in multiple sclerosis

24 June 2014



Dr. Strober is senior research scientist in Neuroscience & Neuropsychology Research at Kessler Foundation. She specializes in research into employment issues in multiple sclerosis. Credit: Kessler Foundation

Researchers at Kessler Foundation and the Cleveland Clinic have published one of the longest longitudinal studies of cognition in multiple sclerosis (MS). The article, "Cognitive impairment in multiple sclerosis: An 18-year follow-up study," was published by *Multiple Sclerosis and Related Disorders* on April 13, 2014. Results provide insight into the natural evolution of cognitive changes over time, an important consideration for researchers and clinicians. Authors are Lauren B. Strober, PhD, of Kessler Foundation and Stephen M. Rao, PhD, Jar-Chi Lee, Elizabeth Fisher, PhD, and Richard Rudick, MD, of the Cleveland Clinic.

"While [cognitive impairment](#) is known to affect 40 to 65% of individuals with MS, few studies have followed the pattern of cognitive decline over time, which is important for understanding long-term care and outcomes associated with MS," said Dr. Strober, senior research scientist at Kessler

Foundation. "Our study was based on a unique sample of 22 patients who underwent neuropsychological testing at entry into the original phase 3 clinical trial of intramuscular interferon beta-1a, and again at 18-year followup."

At baseline, 9 patients (41%) had cognitive impairment; at 18-year followup, 13 patients (59%), were found to be impaired. Significant declines over time were found in information processing speed, auditory attention, memory, episodic learning and visual construction. Decline was steeper in the unimpaired than in the impaired group, as indicated by the Symbol Digit Modalities Test (SDMT).

"These longitudinal data contribute substantially to our knowledge of the course of cognitive decline in MS," noted John DeLuca, PhD, VP of Research & Training at Kessler Foundation. "In light of the young age at diagnosis, this perspective is fundamental to the development of rehabilitation strategies that meet the needs of people dealing with the cognitive effects of MS."

The study was funded by Biogen Idec.

More information: *Multiple Sclerosis and Related Disorders*, [DOI: 10.1016/j.msard.2014.03.004](https://doi.org/10.1016/j.msard.2014.03.004)

Provided by Kessler Foundation

APA citation: Researchers publish one of the longest longitudinal studies of cognition in multiple sclerosis (2014, June 24) retrieved 17 September 2022 from <https://medicalxpress.com/news/2014-06-publish-longest-longitudinal-cognition-multiple.html>

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