

# MS experts link neuroophthalmic syndromes with visual neuropsychological task performance

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Scientists found that individuals with multiple sclerosis (MS) who had a history of neuro-ophthalmic syndromes performed poorly on visual neuropsychological tasks. The article, "Neuro-ophthalmic syndromes and processing speed in multiple sclerosis," was published in the *Journal of Neuro-Ophthalmology*. The authors are Silvana Costa, PhD, of the University of Minho, Braga, Portugal, and Kessler Foundation, Dr. Oscar Goncalves of the University of Minho, Nancy Chiaravalloti, PhD and John DeLuca, PhD of Kessler Foundation, and Jorge Almeida of the University of Coimbra, Portugal.

Blurred vision, diplopia, and nystagmus are among the symptoms of the neuro-ophthalmic syndromes seen in MS. Visual Symptoms may be harbingers of MS, or occur during the clinical course of the disease. Although neuro-ophthalmic syndromes and cognitive symptoms are common among people with MS, few studies have looked at the relationship between these two conditions. In this study, 9 healthy controls were compared with 18 participants with relapsing-remitting MS and normal visual acuity. In the MS group, 12 had a history of neuro-ophthalmic syndromes and 6 did not.

"The group with a history of neuro-ophthalmic syndromes performed poorly on tasks of visual processing speed," noted Dr. Costa.

"Performance appeared to be influenced by the time-limited nature of the task, suggesting that participants with a history of neuro-ophthalmic

syndromes have residual delays in visual processing speed. History of these syndromes was also associated with poor performance on the Symbol Digit Modalities Test (SDMT), which may be caused by the need for more time to process the visual stimuli, thus limiting the time available for the cognitive task of linking the numerals."

Future studies should include more objective measures of vision, neuroimaging data, and valid measures of disease progression and disability.

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