(S113) CONTRIBUTION OF STRUCTURAL AND FUNCTIONAL VISUAL OUTCOMES TO WORK CAPACITY AND EMPLOYMENT STATUS IN MULTIPLE SCLEROSIS

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Background: Work capacity and employment status are increasingly recognized as important outcomes in multiple sclerosis (MS). The extent to which visual symptoms, reduced function, and visual pathway axonal loss contribute to work disability has not been examined. Objectives: The present study aims to estimate how visual outcome measures, retinal nerve fiber layer (RNFL) thickness, and vision-specific quality of life reflect work capacity and employment status in an MS cohort. Methods: Patients with MS completed a vocational status questionnaire. Work status was categorized as disabled (receiving disability pension), reduced-capacity, or full-time. Those unemployed for non-MS reasons or retired due to age were not included in primary analyses (n = 10). Low-contrast letter acuity (LCA) and high-contrast visual acuity (HCA) testing were performed. RNFL thickness was measured by Stratus and Cirrus high-resolution optical coherence tomography (OCT). Health-related quality of life (HRQOL) was assessed using the National Eye Institute 25-item Visual Functioning Questionnaire (NEI-VFQ-25) with Neuro-Ophthalmic Supplement, Impact of Visual Impairment Scale (IVIS), and 36-item Short Form Health Status Survey (SF-36). Results: MS patients (n = 47, 94 eyes), with a mean ± SD age of 48 ± 9 years, were classified into one of the three work status categories. Visual symptoms were most common among patients who were disabled (71%) compared with reduced-capacity or full-time (40%). Disabled patients had the worst scores for NEI-VFQ-25 composite (P = .008, linear regression, accounting for age), Neuro-Ophthalmic Supplement (P = .002), IVIS (P = .003), and SF-36 Physical Components Score (P < .001). RNFL thickness was lowest in disabled patients (P = .004 [Stratus], P = .001 [Cirrus OCT]), even accounting for visual symptoms and history of optic neuritis (ON) (P = .004). Worse visual function scores were associated with greater probability of visual symptoms but did not correlate independently with work status. Conclusions: Measures of vision-specific HRQOL and RNFL thickness reflect work capacity and employment status in MS, even among a heterogeneous cohort of patients not selected for visual symptoms. Anterior visual pathway axonal loss and visual dysfunction are likely contributors to disability in MS and may be markers for potential economic impacts of this disorder.

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