

AAN 69th ANNUAL MEETING ABSTRACT

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Abstract Title: Self-reported Fatigue and Lower Limb Problems Predictive of Conversion to Secondary Progressive Multiple Sclerosis in an Aging Sample of Patients

Press Release Title: How Can We Predict Whose MS Will Worsen?

Objective: To investigate patient reported outcomes predictive of conversion to SPMS in an aging sample of MS patients.

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Background: The secondary progressive (SP) phase of multiple sclerosis (MS) is characterized by a progressive accumulation of neurological disability, preceded by a relapsing remitting (RR) disease course. Older age at disease onset, high frequency of relapses and male sex have frequently been found to be predictive of a higher risk of disease conversion.

Design/Methods: Subjects are part of the New York State Multiple Sclerosis Consortium (NYSMSC). Patients with an RRMS disease type at study enrollment, age 50 or over, with a disease duration of at least 15 years were selected for this study (n=155). Chi-squared tests and logistic regression modelling were used to investigate the predictive value of patient reported outcomes at study enrollment and conversion to SPMS at year five.

Results: Five years after study enrollment (median disease duration=22 years), 47 (30.3%) RRMS subjects progressed to SPMS. Those who converted were older at study enrollment (54.8 vs 52.1, p=.01), and had a higher Kurtzke Expanded Disability Status Scale (EDSS) at both baseline (3.5 vs 2.6, p<.001), and at year 5 (5.6 vs 3.0, p<.001). Patients who progressed at year five were more likely to report lower limb problems at baseline (53.2% vs 21.5%, OR: 3.0, p<.001), and were more likely to report some degree of fatigue (91.5% vs 68.2%, OR: 4.2, p=.004), compared to those who did not progress, even after adjusting for age, disease duration and EDSS. Fatigue and lower limb problems were strongly correlated (p-value=0.001).

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Conclusions: Fatigue and lower limb problems at baseline were predictive of a higher chance of conversion after five years of follow-up. Targeting patients with these symptoms may result in more successfully predicting patients at higher risk of disease conversion and subsequently tailoring therapeutic strategies.

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