(S94) IMPROVEMENT IN MULTIPLE SCLEROSIS–RELATED DISABILITY IS ASSOCIATED WITH IMPROVEMENT IN QUALITY OF LIFE

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Background: Among multiple sclerosis (MS) patients with baseline Expanded Disability Status Scale (EDSS) scores ≥2.0, those treated with natalizumab were significantly more likely to experience sustained improvement in disability over 2 years, compared with patients who received placebo (29.6% vs. 18.7%; hazard ratio, 1.69; P = .006). Disability improvement, which represents a new paradigm for defining successful MS treatment, may be associated with improvements in patient-reported outcomes.

Objectives: To assess the relationship between disability improvement measured by the EDSS and changes in patient-reported quality of life (QOL) in patients with MS. Methods: Post hoc analyses were conducted on data from the AFFIRM study of natalizumab. Based on change in EDSS scores sustained for 12 weeks, disability was categorized as progressed (+1.0 point), stable, or improved (−1.0 point) over 2 years. Patient-reported QOL was prospectively evaluated using the Physical Component and Mental Component Summary (PCS and MCS) scores of the 36-item Short Form Health Status Survey (SF-36) and the Visual Analogue Scale (VAS) of well-being. A 5-point change in PCS or MCS score was considered clinically meaningful. Mean changes in SF-36 and VAS scores from baseline to 2 years were compared across disability groups by analysis of covariance, adjusted for baseline QOL scores. A χ² test was used to analyze clinically meaningful changes.

Results: Sustained improvement in disability was significantly associated with improvements in QOL at 2 years, regardless of treatment group. For patients whose disability progressed, stabilized, or improved, mean changes in PCS scores were −3.05 ± 8.86, 0.38 ± 8.17, 2.42 ± 7.53 (P < .0001); mean changes in MCS scores were −0.93 ± 11.04, 0.32 ± 11.28, 4.08 ± 11.31 (P = .0078); mean changes in VAS scores were −11.78 ± 29.34, −1.18 ± 23.56, 3.04 ± 23.98 (P < .0001), respectively. Analyses revealed a significant association between disability groups and clinically meaningful changes in PCS (P < .0001) and MCS (P = .0250) scores.

Conclusions: Sustained improvement in disability was associated with improvement in patient-reported outcomes, as captured by changes in PCS, MCS, and VAS scores. Results suggest that sustained improvement in EDSS score is a meaningful outcome, as it correlates with patient-reported QOL.

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