(S98) THE NATURE OF AND REASONS FOR MULTIPLE SCLEROSIS THERAPY CHANGES IN PATIENTS UNDERGOING ANTIBODY TESTING

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Background: A recent study found that the inclusion of routine antibody testing for multiple sclerosis (MS) patients receiving interferon beta (IFNβ) therapy significantly affected subsequent therapy choices. Objectives: Evaluate the nature of and reasons for therapy change in patients who participated in either scheduled antibody testing or usual patient-care conditions and experienced a change in MS therapy. Methods: MS patients on IFNβ (1–4 years) were enrolled in a 12-month open-label study. Patients were randomized into either the Regularly Scheduled Antibody Testing arm (3 BAb and NAb tests within 9 months) or the Usual Care Arm (blinded BAbs and NAbs testing at baseline and usual patient care). Both arms had optional testing at 12 months. Results: Patients in the Antibody Testing arm (n = 651) and the Usual Care arm (n = 565) had a mean disease duration of 8.5 years and a mean of 2 years on IFNs. The proportion of therapy change differed significantly between the two arms: 19.5% of patients in the Antibody Testing arm versus 14.2% of patients in the Usual Care arm (P < .0069). No differences were found in the proportions of therapy change within each study arm according to the length of time on IFNs (12–24 months vs. >24 months): 19.2% and 19.8% for the Antibody Testing arm and 15.3% and 12.9% for the Usual Care arm, respectively. There were significant differences in the nature of change for patients between the two arms; a greater number of people in the Antibody Testing arm started >1 courses of steroids for relapses (P = .0022) and started glatiramer acetate (P = .0028). Clinical worsening was the most frequent reason for therapy change in both arms; NAb results was the second most frequent reason in the Antibody Testing arm. Eighty-five patients in the Antibody Testing arm had antibody titers greater than 100. Of them, NAb results was indicated as a reason for change for 37 patients (44%), clinical worsening for 22 patients (26%), and magnetic resonance imaging (MRI) changes for 16 patients (19%). Conclusions: The availability of antibody testing increased the number of therapy changes. For patients who had antibody testing and had a high titer of antibodies, the results of the antibody tests were more often indicated as a reason for therapy change.

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