(S01) FATIGUE AND COGNITION IMPROVE AFTER ONE YEAR OF NATALIZUMAB TREATMENT
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**Background:** Fatigue and cognitive dysfunction are common symptoms of multiple sclerosis (MS) and leading causes of disability in MS patients. **Objectives:** To evaluate changes in patient-reported fatigue and cognitive function after 1 year of natalizumab treatment in MS patients. **Methods:** The study population consists of MS patients initiating natalizumab treatment who agreed to participate in a 12-month longitudinal study. The study assessed patient experiences with natalizumab using validated patient-reported outcome (PRO) measures prior to treatment initiation and after the 3rd, 6th, and 12th infusions. The current analysis reports change in fatigue and cognition from baseline through the 12th natalizumab infusion. Fatigue is measured by the 5-question Modified Fatigue Impact Scale–5 (MFIS-5, score range 0–20), with lower scores indicating lower impact of fatigue on physical, cognitive, and psychosocial functioning. Cognitive function is measured by the 6-question Medical Outcomes Study Cognitive Functioning Scale (MOS-Cog Scale, score range 6–36), with higher scores indicating better reasoning skills, memory, concentration, ability to start several actions at one time, and ability to react to what is said or done. Regression analysis was used to control for baseline (BL) covariates such as age, years since MS diagnosis, number of natalizumab infusions received, disability and functional status, number of MS drugs used prior to natalizumab, and comorbidity burden. **Results:** Results from this ongoing study are presented for 192 patients completing the BL through 12th infusion follow-up surveys. The mean (SD) number of years since MS diagnosis was 10.16 (8.23). Most patients were female (78%), and the mean (SD) age was 46.09 (10.78) years. On average, MFIS scores decreased significantly (BL, 12.23 ± 2.2; 12th infusion score, 10.97 ± 2.2; P < .001), and MOS-Cog scores increased significantly over time (BL, 25.8 ± 1.4; 12th infusion score, 26.91 ± 1.4; P < .001) after controlling for covariates. **Conclusions:** MS patients reported improvements in fatigue impact and overall cognitive function after 1 year of natalizumab treatment.

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