

(S62) COGNITION IMPAIRMENT IN MULTIPLE SCLEROSIS STUDY: 2- AND 3-YEAR RESULTS

Background: Decline in cognitive function occurs in 40–65% of patients with multiple sclerosis (MS) and may be related to lesion load.

Objective: To compare the impact of two doses of interferon (IFN) beta-1a on cognitive function and disease progression in patients with early relapsing-remitting MS (RRMS).

Design/methods: The COGIMUS study is a prospective, multicenter, observational, dose-controlled study that recruited patients aged 18–50 years with RRMS (McDonald criteria) who had received IFN beta-1a 22 or 44 mcg subcutaneously three times weekly for ≥ 3 months. Patients were evaluated clinically at baseline and every 6 months for 3 years; complete neurological examination and Rao's battery of seven neuropsychological tests were performed at baseline and annually.

Results: Of 459 patients recruited, 213 received IFN beta-1a 22 mcg and 246 received the 44 mcg dose. At 2 years, cognitive impairment, as measured in ≥ 2 tests, developed in a significantly smaller proportion of patients receiving IFN beta-1a 44 mcg (48/171, 28.1%) versus 22 mcg (61/156, 39.1%, $p=0.035$). Preliminary 3-year efficacy analysis is based on data from 304 of 363 patients who completed 3 years of treatment; 199 received the 44 mcg and 164 received the 22 mcg dose. Overall, 222/304 patients (73%) were relapse-free over 3 years. Of the remaining 82 patients, 58 (20%) experienced one relapse, 21 (7%) experienced two relapses, 14 (5%) experienced three relapses, 4 (1%) experienced four relapses and 3 (1%) experienced five relapses. The annualized relapse rate was 0.19. Sustained Expanded Disability Status Scale progression (1-step confirmed over 6 months) occurred in 45 patients (15%). Data on 3-year cognition, additional clinical efficacy data, magnetic resonance imaging and safety will be presented.

Conclusion/discussion: This is the first study to show a dose-dependent reduction in the development of cognitive impairment with IFN beta-1a and supports early initiation of therapy in MS.

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Francesco Patti¹

Maria Pia Amato²; Maria Rosalia Tola³; Maria Trojano⁴; Paolo Ferrazza⁵; Orietta Picconi⁶; Stefano Bastianello⁷

¹University of Catania

Via Santa Sofia

Catania, 78

Italy

²University of Florence (Florence, Italy)

³Azienda Universita-Ospedale (Ferrara, Italy)

⁴University of Bari (Bari, Italy)

⁵Opera CRO, Scientific Advisory Board, Genoa, Italy and Neuromed Clinical Research Department, Pozzilli (IS) (Pozzilli, Italy)

⁶Public Health Agency of Regione Lazio (Rome, Italy)

⁷IRCCS Fondazione C. Mondino (Pavia, Italy)