Fingolimod Efficacy by Time Since First Symptoms in Phase 3 Studies

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INTRODUCTION AND PURPOSE

- Fingolimod is the only once-daily oral disease-modifying therapy approved in the United States for the treatment of patients with relapsing forms of multiple sclerosis (MS).
- In the Fingolimod Research Evaluating Efficacy of Daily Oral Therapy in Multiple Sclerosis (FREEDOMS) phase 3 randomized, double-blind study, once-daily fingolimod 0.5 mg significantly reduced the annualized relapse rate (ARR) by 50% compared with placebo over 24 months (fingolimod, 0.18; placebo, 0.40; P <0.001).
- In the 12-month Trial Assessing Interferon Beta-1a Versus Fingolimod Oral in Relapsing-Remitting Multiple Sclerosis (TRANSFORMS) phase 3 randomized, double-blind, double-dummy study, once-daily fingolimod 0.5 mg significantly reduced the ARR by 50% compared with intramuscular interferon beta-1a (0.16; 0.33; P<0.001).

METHODS

Study design and patients:
- FREEDOMS was a phase 3 randomized, double-blind study of fingolimod 0.5 or 1.25 mg once daily for 24 months.
- TRANSFORMS was a phase 3 randomized, double-blind, double-dummy 12-month study of fingolimod 0.5 or 1.25 mg once daily for PIF-1a 30 mg once weekly.

Key inclusion criteria for the 2 studies were age ≥18 years, 12 weeks of disease-modifying therapy (DMT) according to the revised MS-DSS/DNI, a score of ≥0.5 on the Expanded Disability Status Scale, and ≥1 relapse in the previous year or ≥2 relapses in the previous 2 years.

In FREEDOMS, patients who previously received IFN or glatiramer acetate were required to discontinue therapy ≥3 months before randomization.

RESULTS

Demographics and clinical characteristics:
- A total of 234 patients in FREEDOMS and 390 patients in TRANSFORMS had a time of first symptoms ≤3 years; 548 and 900, respectively, had a time of first symptoms ≥3 years.
- Baseline demographic and clinical characteristics were generally well balanced across treatment groups with respect to time since first symptoms (Table 1 and 2).

Efficacy in early MS:
- In FREEDOMS, fingolimod 0.5 mg significantly reduced the ARR vs placebo by 57.4% in patients with early MS (Figures 1A and Table 3).
- In patients with time since first symptoms ≥3 years, fingolimod 0.5 mg reduced ARR by 41.4%.

Efficacy in treatment-naïve and previously treated patients with early MS:
- In both studies, fingolimod 0.5 mg significantly reduced ARR in treatment-naïve patients with early MS (Table 4).

Efficacy in late MS:
- In both studies, fingolimod 0.5 mg significantly reduced ARR in treatment-naïve patients with early MS.

CONCLUSIONS

- These results provide important insights into the potential benefit of early initiation of fingolimod therapy in MS patients.
- Further research is needed to explore the optimal timing and duration of treatment in MS patients.

REFERENCES