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Ten-year comparison of disability trajectories in multiple sclerosis patients treated with early intensive and escalation approach: a study from the Italian MS Register

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Introduction:

Early initiation of high-efficacy disease-modifying therapies (HE-DMTs) has a beneficial long-term impact on disability accrual, but there has been a slow adoption of this strategy.

Objectives/Aims:

To compare the long-term effect of an early (early intensive treatment -EIT-) versus a delayed (escalation -ESC-) start of HE-DMTs on disability trajectories

Methods:

Patients with relapsing onset MS, ≥5 years of follow-up, a first DMT prescription within 3 years from disease onset and ≥3 Expanded Disability Status Scale (EDSS) score evaluations were extracted from the Italian Multiple Sclerosis Register (IMSR). Patients were classified into EIT or ESC group according to the first prescribed DMT. Disability trajectories over a 10 years period were compared between the ESC and EIT groups using a linear mixed model for repeated measures (LMMRM), in a propensity score (PS)-matched cohort.

Results:

The study cohort included 4878 RRMS subjects, 914 treated according to a EIT approach and a larger sample of 3964 patients with an ESC strategy. The PS matching procedure retrieved 907 pairs. Mean annual delta-EDSS values were all significantly ($p < 0.01$) higher in the ESC group compared with the EIT group. In particular, the mean delta-EDSS (95% CI) differences between the two groups tended to increase from 0.12 (0.06–0.18, p = 0.0004) at 1 year to 0.44 (0.28–0.60, p <0.0001) at 5 years and to 0.56 (0.29–0.83, p <0.0001) at 10 years.

Conclusion:

Our results further confirm that an early start of HE-DMTs may enhance long-term clinical outcomes by minimizing the accumulation of neurological damage.

Disclosures:

The authors report no conflicts of interest with respect to the contents of the current study, but note that the patients in the study were treated with a number of disease-modifying drugs and that authors have received advisory board, membership, speakers honoraria, travel support, research grants, consulting fees or clinical trial support from the manufacturers of those drugs, including Actelion, Allergan, Almirall, Alexion, Bayer Schering, Biogen, Celgene, Excemed, Genzyme, Forward Pharma, Ipsen, Medday, Merck, Merz, Mylan, Novartis, Sanofi, Roche, Teva and their local affiliates.