REASONS FOR CHANGING TREATMENT IN MULTIPLE SCLEROSIS

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Background

Multiple sclerosis (MS) is a disabling disease that affects the central nervous system.
Switching from first line drugs or initiation of a second-line therapy should be considered if suboptimal response is observed with first-line drugs.
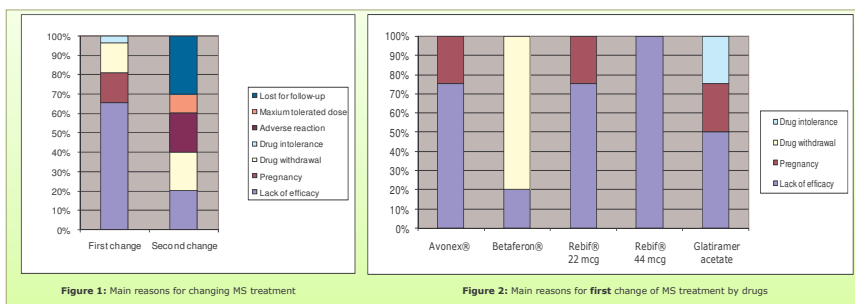• First-line drugs: interferon-β (Avonex®, Betaferon®, Rebif®) and glatiramer acetate.
• Second and third-line drugs: natalizumab, mitoxantrone, cyclophosphamide and rituximab.

Purpose

The aim of this study is to analyze the **changes in MS treatment**, focusing on the **elapsed time** and the **reasons to change**.
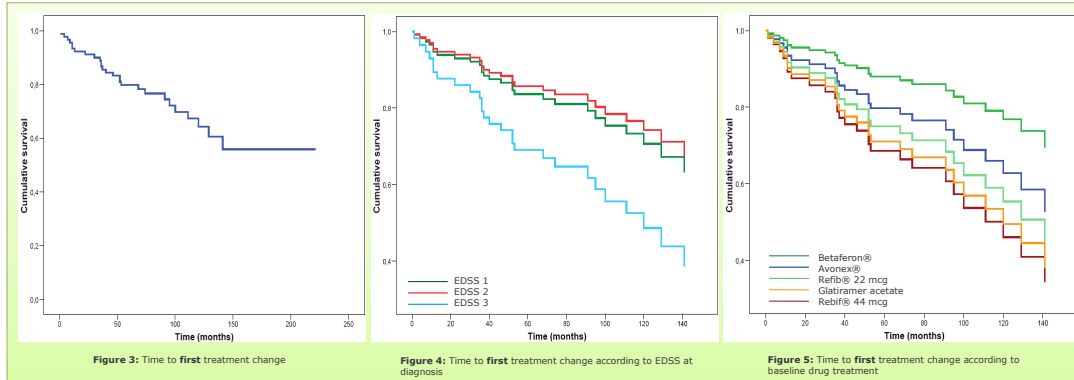
Results

Patients that switched treatment: 30%, once; 7%, at least twice (23,3% of MS population who had changed previously).

Figure 1: Main reasons for changing MS treatment

Figure 2: Main reasons for **first** change of MS treatment by drugs

Treatment time (mean ± SD): 51 ± 43 months, which decreased to 23,5 ± 21,9 months after first change treatment.
Expanded Disability Status Scale (EDSS) score (mean ± SD) at diagnosis: 2,5 ± 1,4; **at first change:** 3,9 ± 1,9; and **at second change:** 5,7 ± 1,8.

Figure 3: Time to **first** treatment change

Figure 4: Time to **first** treatment change according to EDSS at diagnosis

Figure 5: Time to **first** treatment change according to baseline drug treatment

Materials and methods

Design: Cross-sectional, retrospective descriptive study.

Study population: 100 patients, 10% of MS population followed up by the reference Clinical Neuroimmunology Unit. Patients were randomly selected from those who picked up medication from the Outpatient Pharmacy Unit and had clinical records available.

Data collected: biodemographic characteristics, disability value measured as EDSS score, clinical diagnosis, drug treatment, reasons for and time to change.

Statistical analysis: Descriptive and Kaplan-Meier survival analysis (time to change) by pc software package SPSS V.15.0 (SPSS Inc, USA).

Conclusions

-**The main reason for changing MS treatment was lack of efficacy**, although this outcome varies with the drug.
- No changes were observed in treatment in more than half of the patients, during the follow-up period.
- MS treatment time change depends on EDSS at diagnosis and baseline drug.
- Patients with a better EDSS switched their treatment later.
- Patients in the Betaferon group, as first line treatment, changed their treatment later.

1. Rio J, Comabella M, Montalban X. Multiple sclerosis: current treatment algorithms. Curr Opin Neurol 2011;24(23):230-7
2. Rio J, Porcel J, Téllez N, Sánchez-Betancourt A, Tintoré M, Arévalo MJ et al. Factors related with treatment adherence to interferon β and glatiramer acetate therapy in multiple sclerosis. Mult Scler 2005;11:306-9

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