FINGOLIMOD-ASSOCIATED LYMPHOPENIA IN MULTIPLE SCLEROSIS PATIENTS

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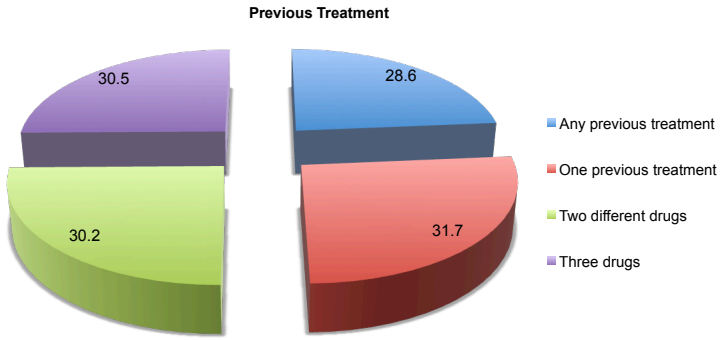
Background
Fingolimod changes lymphocyte count

Purpose
To evaluate changes in lymphocyte count and infection incidence in patients with Multiple Sclerosis (MS) receiving fingolimod

Material and methods
Retrospective study that included all fingolimod-treated patients in a tertiary hospital. Patients were evaluated and the following data were collected: age, sex, mean duration of fingolimod treatment, previous treatments, lymphocyte count (obtained from four different blood tests) and the incidence and severity of infections. The data were compiled using the clinical history software Drago

Results
A total of 63 patients were evaluated, 67% women and 33% men, mean patient age was 39 years



These previous treatments included interferon beta-1a, interferon beta-1b, glatiramer acetate, teriflunomide, dimethyl fumarate and cannabidiol. Mean duration of treatment with fingolimod was 312 days (SD +/-40).
We observed a drop in lymphocyte count that affected all fingolimod- treated patients, with a mean percentage reduction of 28%. (Mean lymphocyte count in the first determination was 2.29 10E3/µL SD +/-1.32, in the last determination was 0.56 10E3/µL SD +/- 1.12)
While on treatment with fingolimod, 3.17% of patients (n=2) suffered from the flu. The rest of the patients, despite of the change in lymphocyte count, did not suffered from any relevant infectious disease

Conclusion
The majority of patients of the study were young (mean age of 39 years) and most of them had received previous treatments for MS. Fingolimod treatment was associated with a significant reduction in lymphocyte count. This results are similar to other studies (Khatri BO et al) .The incidence of infection was not increased and no treatment had to be suspended.
We recommend treatment interruption should be considered if lymphocyte counts less than 0.5 E9/L persist for more than 6 months.
A second blood draw two weeks later is recommended to check wheter the low lymphocyte count could be confirmed.
Clinicians have to be aware of a slightly increased susceptibility to mild to moderate infections

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