

Analysis of the use of fingolimod in patients with Multiple Sclerosis in a University Hospital

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Background

Multiple Sclerosis (MS) is a chronic, inflammatory and degenerative disease, which affects the Central Nervous System¹. Fingolimod (FTY) is a medicine indicated in the treatment of MS patients with active exacerbation/remitting episodes. Being an innovative therapy with high cost has been subject to careful monitoring.

Purpose

Evaluation of the use of Fingolimod between May 2011 and September 2012. Evaluation of benefits in reducing disease progression.

Materials and Methods

- Retrospective analysis of Fingolimod's use in MS patients in outpatient care, followed in Demyelinating Diseases Consultation.
- Blood pressure and heart rate were analyzed using pharmacy database and patients medical records.
- The number of outbreaks and Kurtzke Expanded Disability Status Scale (EDSS) scores were analyzed based in patients medical records. The Expanded Disability Status Scale is a method of quantifying disability in multiple sclerosis and monitoring changes in the level of disability over time. The EDSS quantifies disability in eight Functional Systems. (Figure 1).⁴

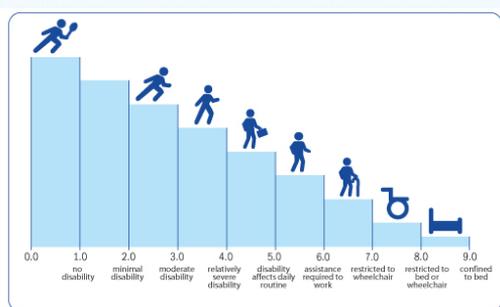


Figura 1 – EDSS scale

- Analysis of the data of monitoring of blood pressure and heart rate at baseline and during the following six hours, according to the summary of product characteristics.²

Conclusions

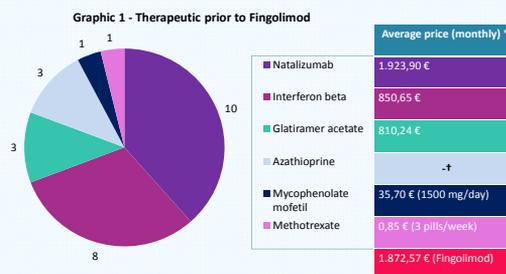
There was no worsening of symptoms after introduction of Fingolimod and there was only one recrudescence episode, requiring a long-term assessment. Despite having higher cost than first line medicines, Fingolimod is the best option because it's an oral formulation, resulting in greater convenience for patients.

BIBLIOGRAPHY:

- ¹Portuguese Society of Multiple Sclerosis
- ²Fingolimod's summary of product characteristics, accessible in: <http://www.ema.europa.eu>

Results

- We analyzed 26 patients, 19 female, mean age of 39.5 years.
- With regard to therapy prior to Fingolimod, it was found that the Natalizumab and Interferon beta were the predominant treatments, according to that illustrated in Graphic 1.



* Do not were weighted usage costs associated with the route of administration
† Do not dispensed on pharmaceutical services

- Table 1 describes the therapies used on 26 patients included in the study, as well as outbreaks occurring in the same period. According to the table it turns out that only one patient suffered one outbreak after initiation of treatment with Fingolimod.



Table 1 – Chronology of treatment given to patients and outbreaks in the period between January 2011 and September 2012

FTY treatment periods	< 1 month	1-6 months	>6-12 months	> 1 year
Nº of patients	4	18	3	1

- The first dose was administered on day hospital of Neurology and was monitored for an 6 hour period the following vital parameters:
 -Mean arterial pressure (MAP): 121,29 mmHg/70,41 mmHg and 113,06 mmHg/68,31 mmHg after 6 h of administration.
 -Mean heart rate (MHR): 71,06 beats/min and 62,53 beats/min after 6 h of administration.

- The analysis of disease progression shows that one patient suffered only one outbreak. Nine patients had a mean decrease of 0,72 in the EDSS scale and 4 maintained the values. There was no increase in lesion extension in Nuclear Magnetic Resonance.

