Multiple sclerosis (MS) involves an immune-mediated process in which an abnormal response of the body’s immune system is directed against the central nervous system. Oral drugs represent a treatment breakthrough: promote patients satisfaction and increase therapeutic compliance. Dimethyl fumarate (DMF) is an oral drug indicated for the treatment of adult patients with relapsing remitting MS.

**PURPOSE**

To evaluate the side effects and the dose reduction or discontinuation of DMF in a tertiary hospital and compare to those published in the product information (PI).

**MATERIAL AND METHODS**

Observational, retrospective study of all patients with MS treated with DMF for at least 2 months in our hospital.

Data collected, obtained from the electronic medical history, were demographics, date of diagnosis, previous treatments, DMF start date, side effects and dose reduction or treatment discontinuation.

**RESULTS**

**Demographics:** 87 patients (67.7% females); mean age: 39.4 years (16-56)

**Previous treatments**

- Interferon beta-1a: 67.4%
- Glatiramer acetate injection: 12.2%
- Interferon beta-1b: 11.2%
- Natalizumab: 12.2%
- Fingolimod: 3.1%

**Number of patients**

- Dose reduction: 9
- Treatment discontinuation: 1
- No changes in treatment: 77

**Side effects**

- Flushing: 5.7%
- Gastrointestinal events: 5.7%
- Pruritus: 2.3%
- Lymphopenia: 2.3%
- Increase in mean eosinophil counts: 1.1%
- Tingling: 48.3%
- Increase in transaminases levels: 1.1%

**CONCLUSIONS**

- Our results agree with those reported in the PI, but on a higher level. Furthermore, cases of tingling were detected, which have not been described yet.
- Although most patients had side effects at the start of therapy with DMF, just 1 patient had to discontinue the treatment.
- Gastrointestinal symptoms and flushing events are the most common adverse reactions and they could be controlled by taking proton-pump inhibitor medication and acetylsalicylic acid.

No conflict of interest

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