INTRODUCTION
Mood disorders are the most concurrent problems in multiple sclerosis (MS) that have a significant impact on the quality of life of these patients.

Objective: Disease-modifying drugs (DMDs) could have some positive or negative psychological effects. Rituximab is a monoclonal antibody commonly used as DMD in MS and its effects on mood have not been fully elucidated.

AIM
In this study, we evaluated the effect of rituximab on mood in MS patients.

METHODS
In this prospective study, all patients who were going to receive the first dose of rituximab from January 2019 to April 2020 in Fars province, south of Iran were enrolled. Questionnaires were filled out before treatment, 3 months after the first course, and 1 month after the second course (7 months later). The tool and process of collecting was measured in Persian and in Iranian society using the opinion of experts and its accuracy and validity in MS has been evaluated by experts.

- Inclusion criteria:
  MS patients who have received corticosteroids in the past
  Patients with a history of any psychiatric illness except anxiety and depression
  Patients taking antipsychotic drugs.

- Exclusion criteria:
  Patients with chronic incurable diseases such as cancer
  Patients who have received corticosteroids in the past month
  Patients who have received corticosteroids in the past year
  Patients with EDSS more than 5

RESULTS
From 108 patients who filled out the questionnaire, 70 patients had inclusion criteria. Among the 70 patients studied in the study, 52 (74%) were female and 18 (26%) were male. The minimum age for men was 20 years and the maximum age was 53 years, and the minimum age for women was 19 years and the maximum age was 52 years. The mean age of all patients was 36.4. The mean age was 35.9 for all women and 37.8 for men.

Mean differences of the HADS scale for depression were 0.54 (CI: -0.24 - 1.33; p=0.17) after the first and 0.73 (CI: -0.49 - 1.55; p=0.30) after the second course of rituximab regarding the base scale which were not significant. For the anxiety, the mean scale at baseline was 6.6 which significantly decreased to 5.6 (p-value=0.039) after the first and 5.3 (p-value=0.005) after the second course.

CONCLUSIONS
According to this study, rituximab could have positive effects on both anxiety (statistically and clinically) and depression (clinically) in MS patients. As a result of our data, only one dose of rituximab could improve significantly the anxiety of these patients. Due to the high prevalence of anxiety and depression in MS patients, this issue can help and can be considered by a neurologist in choosing the type of medication and treatment regimen.

Also, according to the statistics obtained from this study, at the beginning of the study, 22.5% of patients had moderate to severe anxiety and 24% had moderate to severe depression for which they did not receive any treatment. So, with proper attention to this matter and diagnosis and treatment and, if necessary, timely referral to a psychiatrist can help reduce these problems of MS patients and their quality of life. Improve.

BIBLIOGRAPHY

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