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TREATING MULTIPLE SCLEROSIS PATIENTS WITH INFUSION OF DISEASE MODIFYING TREATMENTS DRUGS DURING THE COVID-19 PANDEMIC

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BACKGROUND AND IMPORTANCE

Multiple sclerosis(MS) second-line Disease-Modifying treatments(DMT) cause lymphocyte or B-cell depletion as therapies with natalizumab, ocrelizumab, alemtuzumab or rituximab. They can present a varying degree of immunodeficiency that can translate into an increased risk of infections. The decision-making process should balance the risks of stopping an active treatment and the prone to COVID-19 infection.

AIM AND OBJECTIVES

To evaluate the management of MS patients with second-line DMT via infusion with natalizumab, ocrelizumab, rituximab and alemtuzumab during the COVID-19 pandemic.

MATERIAL AND METHODS

- Observational, retrospective study (January 2020 to October 2020) including MS patients on active treatment with natalizumab, ocrelizumab, rituximab or alemtuzumab who were expected to receive new dosages in this period.
- **Data collection:** the Electronic Clinic History System(**Selene®**) and the Program **FarmaTools®**.
- **Variables collected:**
  - ✓ Sex
  - ✓ Age
  - ✓ Expanded disability status scale(EDSS)
  - ✓ COVID-19 diagnosis
  - ✓ Type of MS
- Treatment changes/delays due to COVID-19 were reviewed. In case of delay, the number of days was quantified.

RESULTS

- JANUARY 2020- OCTOBER 2020
- n=40 patients
  - ❑29 →Relapsing– Remitting MS
  - ❑6 →Primary-Progressive MS
  - ❑5 →Secondary-Progressive MS
- 65% women
- Average age= 47,3 (SD=13,3)
- Average EDSS= 3,8 (SD=2,1)
- 5 patients (12,5%) → COVID+

- 85% of patients, received their dose (natalizumab, ocrelizumab, rituximab) in time in our Hospital.
- Only 6 patients suffered delays because of the pandemic situation.

	WITHOUT CHANGES	TREATMENT DISCONTINUATION/ CHANGES	DELAYS
NATALIZUMAB	13	3	0
ALEMTUZUMAB		3 *	
OCRELIZUMAB	16	1	5 (extended 39 days(SD:23,8))
RITUXIMAB	2	1	1 (extended 36 days)

*Patients who were expected to receive a new dose of alemtuzumab, didn´t → the European Medicines Agency(EMA) alert related to alemtuzumab and the COVID-19 pandemic.

CONCLUSION AND RELEVANCE

- According to recommendations a case by case analysis should be performed but it seems that COVID-19 pandemic has conditioned MS treatments as changes/delays have been registered.
- Five COVID-19 cases were diagnosed, a very similar proportion to the outcomes obtained in the seroprevalence study of the same region.

REFERENCES

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