2021 CMSC Annual Meeting

THE CONSORTIUM OF MULTIPLE SCLEROSIS CENTERS

Natalizumab: Management and safety during the COVID-19 pandemic

Judit Díaz-Díaz, Clara Isabel Ramirez, Marta Clinico San Carlos, MadridOrtiz-Pica, Elena García-Yusta, Irene Gómez-Estevez, Celia Oreja-Guevara.
Neurology, Hospital , Spain

BACKGROUND

MS patients treated with monoclonal antibodies have an increased risk of infections. Natalizumab (NTZ) is a monoclonal antibody indicated in highly active Relapsing-Remitting MS.

We aim to study the safety and management of MS patients on NTZ during the pandemic.

METHODS

Prospective study of MS patients on natalizumab during COVID-19 pandemic.

We evaluated demographic features, time on natalizumab, dose interval and COVID-19 symptoms from March 2020 to January 2021.

RT-PCR COVID-19 tests from nasopharyngeal sample were performed before natalizumab treatment from May 2020 to January 2021.

RESULTS

We analyzed 68 patients treated with NTZ, 70% women and a mean age of 43 years, treated with NTZ for 67 months (range: 2 to 139 months).

In 33% of patients NTZ treatment was changed from every 4 weeks to every 6 weeks to decrease visits to the hospital. 41% of patients continued receiving NTZ every 4 weeks and 59% every 6w.

From March to May 2020 during the first COVID-19 surge, with much higher viral load and most serious disease, 5 patients had COVID-19, 4 showed mild symptoms and 1 a multilobar pneumonia treated at home. So on May 2020 we started COVID-19 screening before natalizumab infusion.

From May 2020 to January 2021, 451 nasal swab PCR COVID-test were performed.

We detected 9 asymptomatic patients with COVID-19 infection and 3 symptomatic patients. In those twelve patients NTZ was not administered; test was repeated 1-2 weeks later with a negative result and NTZ was restarted.

In summary: 17 patients had COVID-19, 9 asymptomatic, 6 mild symptoms, 2 multilobar pneumonia and only 1 of them was hospitalized without mechanical ventilation.

There were no statistically significant differences in terms of age (35.7 SD11.5 vs 43.4 SD7.8; p 0.158), dose interval (5.33 vs 5.32w; p0.962) or treatment duration (5.8 vs 5.6y;p 0.298) between patients with COVID-19 and those without COVID-19 infection.

Characteristic of patients with symptomatic COVID-19 disease

Sex	Age	Hospitalization	Fever	Cough	Anosmia	Ageuisa	Dyspnea	Asthenia	Myalgia	Sore throat	Diarrhea	Pneumonia	Oxygen	Co-infections	Treatment
Woman	44	No	Yes		No	No	Yes	Yes	Yes	Yes	No	Multilobar	No	Urinary infection	Dolquine+Azitromycin+Cefuroxime
Man	36	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No	No	No	Symptomatic
Man	34	No	Yes	No	No	No	Yes	Yes	Yes	No	No	No	No	No	Symptomatic
Woman	35	No	No	Yes	No	No	Yes	Yes	Yes	Yes	No	No	No	No	Symptomatic
Woman	31	No	No	Yes	No	No	Yes	No	No	Yes	No	No	No	No	Symptomatic
Woman	32	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No	Symptomatic
Man	48	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	Multilobar	Yes	No	Tocilizumab
Man	47	No	No	Yes	No	No	Yes	Yes	No	No	Yes	No	No	No	Symptomatic

CONCLUSIONS

In our cohort 25% of patients had COVID-19 infection. 53% asymptomatic, 35% presented mild symptoms and only 2 had pneumonia and no patient required mechanical ventilation.

No increased risk for severe illness from COVID-19 were detected in MS patients on natalizumab.

Hence we conclude that natalizumab treatment seems to be safe in MS patient during COVID-19 pandemic.