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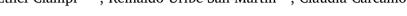
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Commentary

COVID-19 pandemic: The experience of a multiple sclerosis centre in Chile

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Several publications have addressed multiple sclerosis (MS) treatment considerations and the current Coronavirus disease 19 (COVID-19) pandemic. Most consensus recommendations have helped in managing neurologists uncertainty about starting, changing or postponing disease-modifying therapies (DMT) according to the underlying mechanism of action, potential increased risk of infection and a well balanced risk-benefit assessment of MS activity (Brownlee et al., 2020; Carra et al., 2020; Costa-Frossard et al., 2020; Giovanonni et al., 2020).

A recent multicentric study led by the *Italian programme for COVID-19 infection in multiple sclerosis*, including 238 symptomatic patients (57 had positive RT-PCR) from 38 centres, seems to reassure that most patients (96%) developed a mild disease. Unfortunately, 5 patients died, all of them with EDSS \geq 6.5 (Sormani et al., 2020).

From the patient's point of view, the uncertainty has been managed by collecting information from online resources, webinars and individual telemedicine visits with their MS care team. Digital approaches have been proposed in order to improve MS patients care (Bonavita et al., 2020).

Local information about MS patients and the impact of lock-down measures were a major concern for the *Programa de Esclerosis Múltiple UC* professionals, our patients and their families.

In Chile, the first SARS-CoV-2 patient was confirmed on March 3rd, 2020. Quarantine was advised for the elderly since March 15th. On March 16th, we composed a letter addressing recommendations for patients and families including general considerations about MS risk and COVID-19 infection, standard infection prevention measures, and the advice for starting social-distancing and teleworking. Other recommendations included influenza vaccination and suggestions if a

COVID-19 infection was suspected (e.g. when to attend the emergency department and when to stay home). A State of Constitutional Exception and Catastrophe was declared on March 19th, including measures to protect the supply chain logistics (medical and first necessities), cordons sanitaires, and allowing measures such as quarantines and curfews to be imposed. On March 21st, a second letter for neurologists was developed and shared (Cárcamo et al., 2020). We addressed that MS diagnosis was probably not related to a poor outcome, but caution should be taken especially for patients over 60 years with comorbidities, concerns about lymphocyte depleting agents and the general consideration of not stopping MS DMT, especially in those therapies with a risk of rebound activity. Specific considerations for each DMT, relapses, and steroids use were also included. Since March 30th, we began with telemedicine visits. On April 15th, we developed a short online questionnaire in order to rapidly collect updated information about the current status of our patients, with an emphasis on social and COVID-19-related information. Before completion, patients were asked to agree on an online informed consent. A total of 551 online questionnaires were sent, to the date of this report, we received 280 responses, 71.1% women, median age 41 years (range 20 - 81), 88.2% had private health insurance, 95.4% were under DMT (27.1% fingolimod, 20% ocrelizumab, 10.4% interferons, 5.7% teriflunomide, 5.4% dimethyl fumarate, 4.7% alemtuzumab, 4.3% cladribine, 3.9% glatiramer acetate, 3.6% rituximab, 2.1% natalizumab, 8.2% other), 40.3% reported no comorbidity, while 18.3% reported being overweight or obese, 16.3% were current smokers, 9.1% reported hypertension, and 8.4% had insulin resistance or type 2 diabetes. One patient is currently pregnant. Relative to the working situation, 51.8% have full-time jobs, 11.8% part-time, 8.2% were unemployed (same as the national rate of 8.2%) (INE, 2020), 8.2% are homemakers/

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homesteaders, 7.9% are retired due to MS, 7% are on sick-leave, 2.9% are full-time students, 1.8% are retired due to age, and 0.4% are parttime students. Interestingly, from those patients currently working, 75.1% are remote-working, 14.3% mixed, and 10.6% in office-working. Most of remote-working started in early March 2020. Regarding COVID-19 information, 41 patients (14.6%) reported having symptoms suggestive of COVID-19 infection (55% headache, 45% sore-throat, 40% malaise, 31% cough, and 12% fever). From patients who reported symptoms suggestive of COVID-19, 53.4% stayed at home, 15.5% required a general doctor visit, 13.8% consulted the emergency department, and 10.3% only contacted their treating neurologist. Ten patients were tested for COVID-19 (RT-PCR), and 3 patients were confirmed. These 3 COVID-19 positive patients required hospitalization, 2 due to bilateral pneumonia (1 ocrelizumab, 1 dimethylfumarate), and 1 because of current DMT with lymphopenia (fingolimod). To the date of this report, all 3 patients have been discharged home, although 1 patient was readmitted one week after first hospitalization, due to adenovirus and bacterial pneumonia.

As a group, we think that early interventions, such as telemedicine visits, and widespread communication with the community are fundamental in order to improve bio-psycho-social health during these uncommon times. These measures have been greatly received by patients, families and colleagues, overcoming the distance, one virtual step at the time.

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