Multiple Sclerosis During the COVID-19 Pandemic

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The number of people infected with coronavirus disease 2019 (COVID-19) has been rising, with mortality usually between 1% and 5%.[1,2] Therapeutic conundrums confront neurologists treating patients diagnosed with multiple sclerosis. Such patients exhibit a higher risk of infection compared to the general population, perhaps from underlying comorbidities or treatment regimens.[2]

Individuals with multiple sclerosis and related disorders should follow current illness prevention guidelines. Recommendations include social distancing, frequent hand washing with soap and water or an alcohol-based hand rub, respiratory hygiene, and quarantine if sick, when exposed to infected persons, or after testing positive for COVID-19.[3] Medical staff should follow the same protocol and limit hospital and clinic viral exposures to minimize contagion risks. Telemedicine offers one method for remote surveillance with regard to triaging potential patients, completing clinical assessments, and planning interventions.[2]

Many disease-modifying therapies for patients with multiple sclerosis impact the immune system. Some therapies exert immunomodulatory effects without increasing the risk of infection, while others are immunosuppressive. The benefits of continuing ongoing treatment are greater than the risks of discontinuing therapy due to postcessation rebound of multiple sclerosis activity.[3–5] Appropriate means to lessen the risk of infection are indicated.

It is safe to initiate or continue interferon, glatiramer, teriflunomide, dimethyl fumarate, or natalizumab for patients who are otherwise healthy.[3,5] Postponing treatment or extending interval dosing can be considered when there is significant risk of contracting COVID-19 infection. Alemtuzumab, ocrelizumab, rituximab, cladribine, and sphingosine 1-phosphate modulators sometimes cause transitory lymphopenia and B-cell depletion[3,5,6]; thus, there is concern when initiating such therapies during

Table 1. Potential Treatment and Associated Risk

Very low risk	Interferon β1a, interferon β1b, glatiramer, and teriflunomide
Low risk	Natalizumab (highest efficacy) and dimethyl fumarate
Intermediate risk	Ocrelizumab, rituximab, cladribine, ofatumumab, and sphingosine 1-phosphate modulators
High risk	Alemtuzumab (during initial months post infusion) and hematopoietic stem cell transplant

a pandemic.[3] Table 1 provides an overview of potential treatments and associated risks.

Initial pharmacotherapies should be withheld for patients with multiple sclerosis with a confirmed COVID-19 infection until clinical resolution or approval by an infectious disease specialist. Decisions about prescribing interferon are determined by the attending neurologist.[6]

Fear of infection is warranted during the COVID-19 pandemic.[6] Thus, it is important to gather information from people with multiple sclerosis and related disorders about the impact of COVID-19. Data about those patients prescribed immunosuppressive treatments and evidencing positive COVID-19 test results should be collected in disease registries. Public health officials should be alerted when patients with multiple sclerosis test positive for COVID-19 illness.[3,7]

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