



Editorial

The prevention of major neurocognitive disorders in the next phase of COVID-19 pandemic: On being proactive



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Older people living with major neurocognitive disorders (MNCD) have paid the highest price for the coronavirus disease 2019 (COVID-19) pandemic worldwide. Indeed, MNCD were the most common comorbidity listed with COVID-19 on the death certificates of individuals aged 65 years and over between January 2020 and February 2021 in some Western countries [1]. For instance, 45% of Canadians aged 85 years or more who died from COVID-19 in 2020 had MNCD. Furthermore, even if older people did not contract COVID-19, they were at high risk for worsening neuropsychiatric symptoms aggravated by social isolation, psychosocial stressors and disruption in the healthcare system due to the influx of COVID-19 patients and the related reorganization of services [2]. Definitively, the interaction between COVID-19, MNCD and a vulnerable healthcare system exposed older people living with MNCD to a higher risk of poor health outcomes compared with other population groups, highlighting that COVID-19 took the form not only a pandemic but also a syndemic [3]. We have all learned that we need to pay greater attention to frail older adults, like those with MNCD. What we need to do rapidly is take action for those who are at risk of MNCD because the conditions for rising prevalence and incidence of MNCD have accumulated significantly after 2 years of the pandemic.

Over the past two decades, care strategies for MNCD have gradually shifted from curative toward preventive interventions addressing their modifiable risk factors (MRFs) because MNCD disease-modifying treatments remain elusive [4]. A recent review of the literature shows that up to 40% of late-onset MNCD could potentially be prevented or delayed by addressing MRFs, including sedentariness, cardiovascular risk factors and diseases, and social isolation [4]. If acting on MRFs of MNCD is beneficial, it could be suggested that the opposite may accelerate poor clinical outcomes. Homebound physical distancing, in combination with healthcare service disruption, has worsened MRFs of MNCD over the past two years and, thus, may increase the incidence of MNCD over the coming years. For instance, a decrease in physical activity and over-eating have been reported during the pandemic [5,6]. There has also been a disruption of physical care for patients with chronic diseases,

which has exacerbated their stress due to uncertainty over their condition as well as sudden separation from loved ones and a potential shortage of essential supplies [2]. It has been reported that excessive stress causes severe inflammation in the brain, which has been associated with low cognitive performance and a higher risk of MNCD [6]. Thus, we suggest that the risk of incident MNCD has greatly increased in older people, especially among those with minor neurocognitive disorders, regardless of their COVID-19 status. Furthermore, those who have been infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) require particular attention because of potential neurological damage [7,8]. The prevalence of neurological symptoms like loss of smell and taste was high in infected patients, especially older ones, at around 30–40% [7]. A SARS-CoV-2 tropism for the central nervous system has also been observed. Both cytokine storms and hypoxemia caused by pneumonia can provoke brain damage and alterations of the blood-CSF barrier that may increase risk of neurodegenerative diseases like Alzheimer's disease [8]. Furthermore, COVID-19-related encephalopathy and an increased prevalence of strokes have been described in patients with severe SARS-CoV-2 infections, especially in older patients [6,8]. Both of these neurological complications may be associated with an increased incidence of MNCD.

We had successes and failures in our efforts to provide appropriate care for older patients over these past 2 years of the COVID-19 pandemic. How we learn from these times and respond going forward will be crucial for older patients at risk of MNCD. It is time to show initiative and be proactive by establishing coping mechanisms for change, after witnessing 2 years of worsening behavioral lifestyle patterns of those at risk. For one, we need to see a return to or uptake of physical and social activities and healthy dietary measures. In addition, we need to take care of their morbidities, with a particular focus on frailty, which is an individual's health state as characterized by vulnerability to stressors due to decreased physiological reserves [9]. A significant adverse consequence of chronic morbidity accumulation is frailty. Frailty is associated with an increased risk of MNCD [9]. Frailty

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may be reversed and, thus, assimilated as an MRF of MNCD [9]. Thus, addressing frailty (i.e., assessing frailty levels and proposing interventions to reverse frailty) might also be a key intervention to prevent MNCD during the next phase of the COVID-19 pandemic.

Contributors

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