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Editorial

The impact of COVID-19 pandemic on the elderly with neurocognitive disorders

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Since the COVID-19 pandemic outburst, numerous studies have reported on the holistic approach of the disease, which has negative consequences on physical and mental health as well as short- and long-term effects on cognition, independently of age. The context of the pandemic brought significant demands on public health systems, leading to restrictive measures against coronavirus expansion (quarantines, physical distancing policies, etc.). Such measures are reported to increase perceived loneliness and helplessness and may exacerbate feelings of emotional distress.[1] Elderly diagnosed with neurocognitive disorders, i.e., mild cognitive impairment (MCI) or dementia, may present multifaceted cognitive deficits accompanied by neuropsychiatric symptoms, medical comorbidities, and high mortality rates. Furthermore, the elderly with MCI/dementia are more vulnerable to SARS-COV-2 infection and disease complications due to decreased compliance with protective measures and multimorbidity. Simultaneously, limited access to health care services, distancing from their loved ones, abrupt changes in their daily routines, or cancellation of daycare programs may make them more susceptible to pandemic secondary effects.

According to the World Health Organization, about 55 million people live with dementia globally. Dementia diagnosis was reported as an independent risk factor for increased mortality rate among the elderly infected with SARS-COV-2.[2] Cross-sectional studies conducted all over Europe reported increased cognitive deterioration rate in patients with MCI and dementia during lockdown compared to the pre-lockdown period, as well as among dementia patients infected with COVID-19 compared to those not infected.[3] Exacerbation of pre-existing sleep/appetite dysregulation and aberrant motor behavior, worsened symptoms of apathy, depression, and agitation, a rise in delirium episodes and disease-related falls, and the onset of behavioral symptoms during quarantine occurred.[4] Also, patients living alone expressed excessive worrying and an overall decline in well-being. However, results from a large cohort study conducted in England failed to distinguish COVID-19 effects on dementia patients' psychological state between 2018 and 2020, possibly due to the small number of dementia patients recruited and disease severity.[5]

Among the Greek elderly, dementia prevalence rates range between 5–10.8% and 32.4% for MCI incidence.[6,7] Only a few studies have investigated the impact of COVID-19 quarantine on the mental and psychological health of the Greek elderly diagnosed with cognitive disorders. A longitudinal study was conducted between 2018 and 2020, including many elderly people with MCI or Alzheimer's disease (AD). The authors compared the objectively assessed deterioration difference pre- and during the quarantine in terms of cognition, behavior, and function level. They concluded that no significant quarantine-related changes were detected in cognition between the three-time points, although the possibility that behavioral and psychological deterioration indirectly affected cognitive and functional decline among AD patients cannot be excluded.[8] In a cross-sectional study conducted during the first quarantine period (i.e., February to May 2020), critical aspects of everyday life (mood, physical health, communication), as well as compliance with confinement policies, were examined based on subjective information provided by caregivers of elderly with MCI or dementia. Based on their findings, the authors report that MCI and dementia patients exhibited a significant overall decline, whereas those with dementia were more likely to deteriorate in terms of neuropsychiatric symptoms (apathy, mood changes, psychomotor anxiety), excessive worrying, and limited compliance with measures against COVID-19 expansion.[9]

In an effort to minimize possible deleterious effects of the pandemic-related quarantine on the elderly with neurocognitive disorders, telemedicine was implemented instead. Neuropsychological online testing, systematic monitoring of clinical outcomes (compliance with pharmacotherapy), and motivational interventions such as physical activity programs were accommodated using user-friendly applications and telephone consultations.[10] Nevertheless, limited access to and familiarization with technology, severity of cognitive deficits, and demographic factors (i.e., low educational and socioeconomic status), may have limited positive outcomes in the current population.

In conclusion, the combined effect of neurocognitive disorders and the pandemic exceeds the healthcare system's demands, posing in some cases insurmountable challenges. To minimize the negative effect of future similar conditions, the focus should be given to the following directions:

- Patient-oriented, holistic protocols for systematic monitoring of clinical course, future cognitive decline, and timely psychiatric/neuropsychological interventions when necessary.
- Specialized training for caregivers and nursing staff focusing on the inclusion of self-hygiene measures in patients' daily routines.
- Patients familiarization with online tools for cognitive enhancement programs and diagnostic/monitoring purposes.

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