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DELIRIUM AND COVID-19: THE NEED FOR PERSON-CENTERED CARE

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Dear editor,

COVID-19 pandemic is expected to increase both incidence and duration of delirium in elderly patients, regardless of whether they are hospitalized or not for COVID-19 infection, due to difficulties in implementing proper preventive strategies (LaHue et al. 2020).

With increasing frequency, delirium is being recognized as an important neuropsychiatric component of COVID-19 infection, a presenting manifestation of the disease or as a complication upon admission (Low et al. 2021), while the World Health Organization recognizes disorders of consciousness and/or confusion as core features of the presentation of COVID-19 infection (Hawkins et al. 2021). Despite these, the evaluation of elderly patients with COVID-19 does not routinely include assessment for delirium or changes of mental status (O'Hanlon & Inouye 2020).

Delirium is among the commonest acute disorders in general hospital. It is related to increased duration of hospitalization and mortality, long-term cognitive and functional decline, and risk for institutionalization (Mcloughlin et al. 2020). Especially for patients with COVID-19, studies have shown that 20-30% of hospitalized patients with the infection will present or later manifest delirium. In severe cases, this rate increases to 60-70% (Mcloughlin et al. 2020).

The etiology of delirium in these patients is possibly multifactorial and is related to viral invasion in the central nervous system (CNS) (Sinanovic 2021). The secondary neurological effects include increased inflammatory mediators in the CNS, brain hypoxia and brain vascular injury, multi-organ failure, fever and dehydration, neurotransmitter imbalance and metabolic derangement (Emmertson et al. 2020). In critically ill patients of intensive care units the etiology is probably related to microvascular disease and inflammatory mechanisms (Hawkins et al. 2021).

There is a need for increased vigilance of elderly patients with COVID-19 infection in order to timely detect and acutely treat delirium, initially using non-pharmacological measures, if this is possible. Identification of at-risk patients is also important (Emmertson et al. 2020). Taking into consideration that no drugs are approved for the prevention or treatment of delirium, patient management is based on non-pharmacological measures and cessation of psychotropic drugs which are not necessary (LaHue et al. 2020).

Nevertheless, protective equipment used by nurses and physicians, and isolation of patients, resulting to limited communication, impede many of the preventive strategies for delirium. Furthermore, patients may have many preexisting cognitive deficits or memory disorders that deteriorate by the negative consequences of isolation, of drugs used for the treatment of infection and of the effects of COVID-19 (Low et al. 2021).

Treatment of delirium in patients with COVID-19 poses additional challenges related to matters concerning human resource management and bioethical problems concerning patient care and infection control, available nursing and medical time, and family visits (Peterson et al. 2021).

Prevention and treatment of delirium should be placed in the heart of politics, research, and education about COVID-19 infection. Since it bears many important negative consequences for the experience and the outcome of patients, the duration of hospitalization and continuity of care, it is imperative that necessary resources are directed towards research for effective strategies of prevention, identification of patients and management of delirium (Peterson et al. 2021).

Even though non pharmacological approaches are considered effective and consist the main methods of management of delirium in elderly patients, measures such as therapeutic communication and reorientation of patients, therapeutic activities, early mobilization, techniques of relaxation, and non-pharmacological management of sleep-wake disorders may be more difficult to implement under the current circumstances of nursing and medical work in a general hospital. In any case though, person-centered care must be at the core of our response to the vulnerable group of elderly patients (O'Hanlon & Inouye 2020).

Acknowledgments: None.

Conflict of interest: None to declare.

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PSYCHIATRIC MANIFESTATIONS OF SARS-COV-2 INFECTIONS (PSYCHO-COVID)

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Dear editor,

We eagerly read the review article by Moretti et al. on the neurotropism and neuropsychiatric manifestations of SARS-CoV-2 infections (Moretti 2021). It has been established that ageusia, anosmia, and encephalitis are common neurological manifestations of SARS-CoV-2 infections and that delirium is not only a potential complication of SARS-CoV-2 infections but can be triggered by a range of environmental factors (Moretti 2021). It was concluded that neuropsychiatric symptoms, particularly delirium, can help detect the infection at an early stage (Moretti 2021). The study is promising but raises concerns that need to be discussed.

We disagree with the conclusions that delirium can help identify COVID-19 (Moretti 2021). Although delirium has occasionally been reported as a psychiatric manifestation of COVID-19, it has only rarely been reported as onset manifestation of the disease (Butt 2021). Therefore, while COVID-19 can be suspected in the presence of delirium, various differentials of delirium must be ruled out and the virus detected by PCR from naso-pharyngeal swabs, before COVID-19 can be diagnosed in the presence of delirium.

We disagree with the notion that anosmia, ageusia, and encephalitis are the most common neurological manifestations of SARS-CoV-2 infections (Moretti 2021). Several studies have found that headache is the most common neurological symptom in SARS-CoV-2 infected patients (Albarran-Sanchez 2021). The most common neurological complication besides headache, anosmia, and ageusia, is cerebro-vascular disease, including intra-cranial bleeding (subarchnoid bleeding, intracerebral bleeding, microbleeds), venous sinus thrombosis, and stroke (Albarran-Sanchez 2021, Gonzalez-Gonzalez 2021).

We disagree that COVID-19 is associated with hypoxia (Moretti 2021). Patients with severe COVID-19, who require oxygen supplementation, are usually well monitored and are

never hypoxic. Only COVID-19 patients requiring resuscitation may experience hypoxia during the procedure when performed by laypersons. Typical features of cerebral hypoxia can only be detected in the cerebral MRI in these cases.

A number of psychiatric manifestations of COVID-19 have incomprehensibly gone untreated. In a review of the neuropsychiatric manifestations of COVID-19 patients, the full spectrum of psychiatric disorders associated with COVID-19 should at least be mentioned. Isolated hallucinations (Pleszkó 2021), schizophrenia (van Reekum 2021), akinetic mutism, mood disorders, autism spectrum disorders, eating disorders, anxiety disorders, and sleep disorders were not discussed in the review.

It lacks discussion of the term "brain fog", which has been used repeatedly to describe the psychiatric condition in COVID-19 patients. We should be told if the term refers to dizziness, confusion, delirium, or disorientation.

Overall, the interesting review has limitations that call their results and interpretation into question. The spectrum of psychiatric disorders associated with SARS-CoV-2 infections is broader than expected. A review of neuropsychiatric symptoms in COVID-19 should provide an overview of the full plethora of SARS-CoV-2 associated neuropsychiatric abnormalities rather than a selected discussion of a single item.

Acknowledgments: None.

Conflict of interest: None to declare.

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