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CE - LETTER TO THE EDITOR

Delirium in COVID-19 pneumonia: looking inside the geriatric unit

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Keywords Delirium · Coronavirus disease 2019 (COVID-19) · Severe acute respiratory syndrome · Neuropsychiatric disorder · Geriatric unit

Abbreviations

COVID-19	Coronavirus disease 2019
CPAP	Continuous positive airway pressure
H-CPAP	High-flow generator using a helmet
RASS	Richmond Agitation Sedation Scale
CAM-ICU	Confusion assessment method-intensive care unit

Dear Editor,

We read with great interest this interesting article where the existence of delirium in sufferers of COVID-19 pneumonia in a geriatric intensive care unit was studied [1]. We congratulate the authors on their work in this emerging area of importance, and raise several points we feel warrant further discussion.

Firstly we note the observation that use of the H-CPAP High-flow generator with a helmet was identified as a factor associated with the onset of delirium. We feel that several other relevant factors in this area may have contributed to this finding and should be considered further, namely: if intolerant patients received another type of interface (e.g., a face mask); what level of training and protocolised care was utilised; if pharamacological treatments for the control of delirium were used; and if de-escalation from CPAP to alternate treatments (such as nasal high flow oxygen) was employed in the face of worsening delerium.

Secondly, the presence of delirium-neuropsychiatric disorder in this patient cohort is worthy of futher consideration. It is widely acknowledged that the management of patients with dementia during this pandemic has raised several concerns, especially given the increased incidence and severity of disease in elderly [2]. Restricted social contact and increased isolation have well-established negative psychological effects on patients with dementia. It is also important to recognise the adverse neuropsychiatric effects of several drugs commonly used to treat COVID-19 pneumonia. In our experience patients with dementia tend to tolerate high-flow nasal cannula well, and often better than other commonly used interfaces. Attempts to oxygenate patients with dementia were frequently unsuccessful due to poor tolerance of various facial and nasal masks. It is widely recognised that acute brain dysfunction was highly prevalent and prolonged in critically ill patients with COVID-19, and that benzodiazepine use and lack of family visitation are modifiable risk factors for delirium [3]. It is unclear if the study patients received any prevention measures to counteract these effects, such as action by caregivers, prevention of sleep disturbance or mobilisation.

Finally the authors describe two patterns of delirium frequency, namely that delirium was present on admission in 11.3% of patients, and occurred during hospitalization in 19.0%. We consider this to be an interesting finding and wonder if some risk factors were more prevalent at different stages of the patient journey, and if the authors have considered the different pathophysiological mechanisms, prevention and treatment measures that may have been in play at different times during the admission.

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Declarations

Conflict of interest The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

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Informed consent Not required.

References

1. Callea A, Conti G, Fossati B, Carassale L, Zagaria M, Caporotundo S, Ziglioli E, Brunetti V, Della Marca G, Rollo E (2022) Delirium in hospitalized patients with COVID-19 pneumonia: a prospective, cross-sectional, cohort study. Intern Emerg Med 27:1–8. https://doi.org/10.1007/s11739-022-02934-w
2. Wang H, Li T, Barbarino P, Gauthier S, Brodaty H, Molinuevo JL, Xie H, Sun Y, Yu E, Tang Y, Weidner W, Yu X (2020) Dementia care during COVID-19. Lancet 395(1231):1190–1191. https://doi.org/10.1016/S0140-6736(20)30755-8
3. Pun BT, Badenes R, Heras La Calle G, Orun OM, Chen W, Raman R, Simpson BK, Wilson-Linville S, Hinojal Olmedillo B, Vallejo de la Cueva A, van der Jagt M, Navarro Casado R, Leal Sanz P, Orhun G, Ferrer Gómez C, Núñez Vázquez K, Piñeiro Otero P, Taccone FS, Gallego Curto E, Caricato A, Woien H, Lacave G, O'Neal HR Jr, Peterson SJ, Brummel NE, Girard TD, Ely EW, Pandharipande PP, COVID-19 Intensive Care International Study Group (2021) Prevalence and risk factors for delirium in critically ill patients with COVID-19 (COVID-D): a multicentre cohort study. Lancet Respir Med 9(3):239–250. https://doi.org/10.1016/S2213-2600(20)30552-X