

BACKGROUND

Many COVID-19 patients present with neuropsychiatric manifestations similar to known presentations in other coronavirus infections such as SARS-COV-1 and MERS (Nalleballe 2020). We present a case report for a patient with delirium and akinetic mutism as a direct result of COVID-19 infection leading to severe cognitive impairment requiring placement of the patient in a locked dementia unit.

CASE – KEY POINTS

A 78-year-old man with COVID-19 initially presents with neurological symptoms and develops akinetic mutism. Although mentation improves with resolution of delirium, his new baseline cognition is greatly impaired and consistent with steep neurocognitive decline.

CASE

Mr. B is a 78-year-old man with newly diagnosed mild cognitive impairment (MMSE 22/30 four months prior) brought to the ED for worsening mental status and involuntary movements. At baseline, he lived independently at home and had occasional forgetfulness. On admission, he tested positive for COVID-19 with brain CT and EEG showing no acute abnormalities. Mr. B demonstrated delirium and abnormal movements throughout the week, thought secondary to COVID pneumonia and akinetic mutism, respectively. His mentation continued to improve, and he was discharged to a SNF after three weeks. He returned to the ED later that night sent by the SNF staff who reported he was confused, aggressive, and wandering the halls naked. On readmission, the patient was pleasant and cooperative, although with significant memory impairment. Two MoCAs performed on days 4 and 8 of readmission were scored 7 and 10 out of 30 points, respectively. Repeat brain imaging with MRI showed no acute abnormalities. Three days after his second discharge, he was transferred to a locked SNF unit due to elopement risk.

DISCUSSION

Mr. B demonstrated a steep cognitive decline following his COVID-19 infection. There was no evidence of acute cerebrovascular event on imaging. While there may be a significant association between patients with an acute episode of delirium and long-term cognitive decline (Goldberg 2020), Mr. B had a well-documented resolution of his initial delirium with no evidence of lingering delirium at the time of his second admission nor during his MoCAs. The patient's akinetic mutism with abulia, alogia, and clonus is consistent with findings of previous reports as well (Beach 2020).

CONCLUSIONS

Coronaviruses are known to enact neurotoxic effects, and SARS-COV-2 similarly presents with extra-pulmonary symptoms. We posit this case as an example of an acute infection associated with an abnormally steep cognitive decline. Additionally, the presence of akinetic mutism may serve as an indicator of neurotoxicity.

REFERENCES

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