Prolonged Unconsciousness Following Severe COVID-19

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Study Question
What is the clinical course of patients with COVID-19 related severe respiratory failure who have prolonged but reversible unconsciousness?

What Is Known and What This Paper Adds
Many patients admitted to an intensive care unit (ICU) with COVID-19–induced respiratory distress and prolonged unconsciousness have brain changes detected on MRI. As prolonged unconsciousness is a bad prognostic sign this can influence decision on end-of-life care. This investigation’s results describe the distinctive clinical pattern from prolonged unconsciousness to a normal consciousness level in these patients which has not been well characterized before.

Methods
For this case series report, the investigators reviewed the medical records of 6 patients with COVID-19 (50% male; age range, 41–74 years) who underwent mechanical ventilation in an ICU setting and experienced prolonged unconsciousness following the cessation of sedatives after 14–31 days of administration. These patients were free of neurologic symptoms at the time of ICU admission and received treatment at multiple hospitals in the Netherlands. The present study’s primary outcomes were the patients’ times from cessation of sedative administration to the recovery of consciousness.

Results and Study Limitations
Despite the occurrence of prolonged unconsciousness, diagnostic neurologic workup revealed no signs of devastating brain injury, although the 4 patients who underwent brain MRI scans all exhibited microbleeds or leukoencephalopathy. In all cases, the clinical pattern of awakening began with early eye-opening in response to acoustic or tactile stimuli 1–12 days after the cessation of sedatives. However, the patients continued to exhibit flaccid weakness and could not clearly perform requested actions. The intervals between the cessation of sedatives and the first moment of being fully responsive with the ability to perform requested actions ranged from 8 days to 31 days. The times to ICU discharge for the 5 patients discharged by the time of publication ranged from 39 days to 160 days. A limitation of the present study is its susceptibility to the selection biases inherent to case series reports and its small sample size.

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