

Ischemic Cerebrovascular Accident Associated with COVID-19 in a Young Adult: A Case Report

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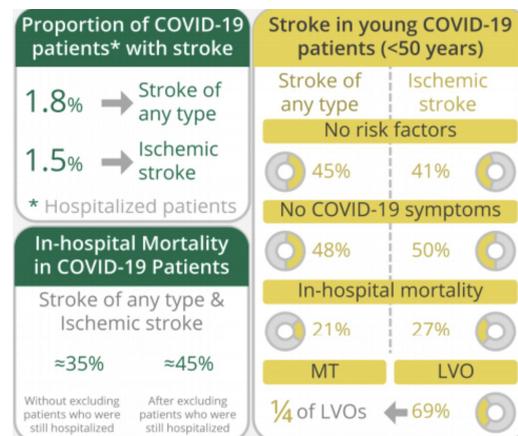
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PHYSICAL MEDICINE & REHABILITATION

Background

Soon after the onset of the COVID-19 pandemic, there was a correlation noted between COVID-19 infection and thrombotic/thromboembolic disease. While still under investigation, this is thought to be due to a combination of direct and indirect effects of the virus via resultant inflammatory response, critical illness, and amplification of risk factors¹. According to a recent systematic review published in *Neurology*, 18.1% of 160 COVID-19 patients with associated strokes were under the age of 50, and 16.4% had no risk factors for stroke².



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Clinical Presentation

A previously healthy 26 year-old Hispanic male construction worker presented with acute left-sided weakness, altered speech, and facial droop. Several family members that he lives with recently tested positive for COVID-19, and he had been home from work for a week after developing symptoms of malaise, cough, and intermittent fevers. He is uninsured and had not previously sought care.

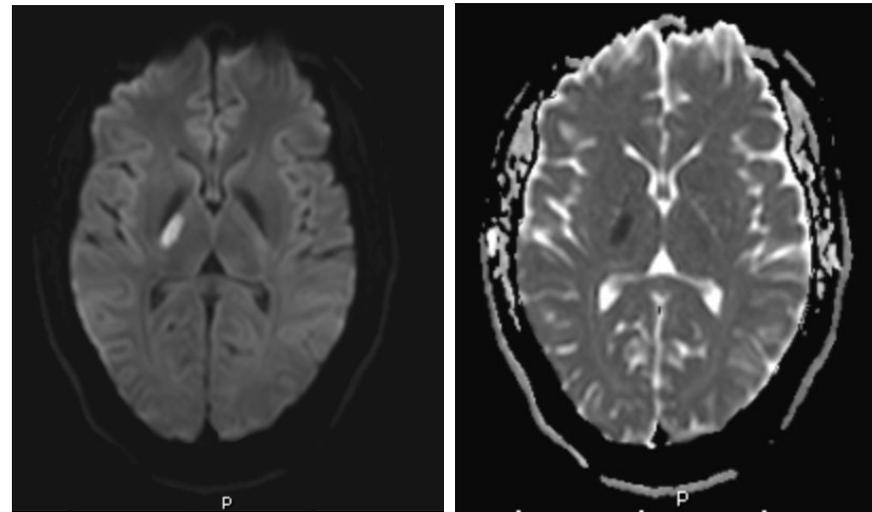
Results

MRI brain revealed ischemic infarction of the right internal capsule.

COVID-19 test returned positive.

Risk factor assessment: Hba1c 5.4%, LDL 64.

TTE was deferred to outpatient due to COVID positivity.



Management

He was administered tenecteplase, admitted to the ICU, and started on aspirin 81 mg. Despite thrombolytic therapy he remained with significant left hemiparesis, left neglect, dysarthria, and impaired cognition. PT, OT, SLP recommended inpatient rehab (IPR), but placement was impeded by COVID-19 infection and funding limitations. The patient remain hospitalized until he was able to mobilize at a supervision level with a walker. He was discharged home to his father's care who was also recovering from COVID-19.

Discussion

This case adds to the growing evidence of neurologic sequelae of COVID-19. This sequelae further highlights the rehabilitative needs of this population. Denying IPR access based on COVID-19 positivity increases hospital length of stay, potentially inhibits ultimate functional recovery, and contributes to long-term disability. This has clear socioeconomic consequences, especially for young patients with physically demanding jobs.

Evolving data shows high incidence and mortality of COVID-19 in the working-class and the Latinx communities³. Disparities in these communities are compounded in the pandemic. Lack of healthcare access and inability to isolate or socially distance both at work and at home are felt to contribute to this gap³. As described in *JAMA*, "social distancing is a privilege"⁴.

Conclusion

COVID-19 infection and associated hypercoagulability may lead to cerebrovascular accident in otherwise healthy, young patients. This pandemic has highlighted health disparities, in part by disproportionate impact amongst the Latinx working class population. This creates the opportunity to address the root causes of these inequities. Further, in an already underserved population additional barriers to rehabilitation limit functional recovery and contribute to long-term disability.

References

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