



Peculiar presentation of Covid-19: A case report of concurrent stroke and Guillain–Barré Syndrome

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Background: Coronavirus disease 2019 (COVID-19) is a newly recognized infectious disease that has turned into a pandemic. There are few studies reporting Guillain–Barré syndrome (GBS) and stroke separately associated with COVID-19. In this study, we report an unusual case of COVID-19 with stroke and GBS concurrently.

Case Report: A 59-year-old woman presented with left-sided weakness of two weeks' duration followed by right-sided weakness and foot paresthesia. She also complained of cough, myalgia, and respiratory distress of three weeks' duration. On examination, the patient had respiratory distress. The limb examination revealed asymmetric weakness. All limb reflexes were absent. Pinprick sensation was impaired. The chest CT scan and PCR of nasopharyngeal swab confirmed the diagnosis of COVID-19. Further evaluation revealed acute cerebral infarction and GBS. Consequently, the patient was treated by plasmapheresis, and her symptoms partially improved.

Conclusion: According to reports, 36.4% of COVID-19 cases display neurological complications. The neurological manifestations of the disease can involve both the central and peripheral nervous systems. Previously, a few cases of GBS and cerebrovascular disease have been reported in association with COVID-19 separately, while in the present case, CNS and PNS involvement occurred concurrently. It is hypothesized that this concurrence is related to the imbalance of the systemic inflammatory responses and blood vessel autonomous dysfunction.