Stroke

LETTER TO THE EDITOR

Letter by Golomb and Hall Regarding Article, "Temporary Emergency Guidance to US Stroke Centers During the COVID-19 Pandemic"

Meredith R. Golomb, MD, MSc; Graham C. Hall, MD

To the Editor:

We read with interest the article, "Temporary Emergency Guidance to US Stroke Centers During the COVID-19 Pandemic."[1] These guidelines cited 2 papers from Wuhan China which were initially posted online.[2,3] Both papers reported stroke in ≈6% of hospitalized patients with coronavirus disease 2019 (COVID-19). Most of the patients had ischemic stroke, but both series reported a single patient each with intracranial hemorrhage. These patients were older and often had predisposing risk factors, such as hypertension, diabetes mellitus, smoking, and history of cerebrovascular disease. Most of the patients had stroke an average of 10 days after COVID-19 onset. The guidelines cite the work of Guo et al,[4] suggesting that hypercoagulable states due to acute infection and cardiac damage caused by COVID-19 may be some of the mechanisms by which COVID-19 causes stroke. Thrombocytopenia has been reported in 5% to 41% of patients with COVID-19, usually in those who are severely ill.[5]

However, in some cases, stroke may be the symptom that brings a patient with COVID-19 to the emergency room. We report a 66-year-old nonsmoking male with past medical history of remote cardiac stents on daily baby aspirin. He presented to the Emergency Department with a 5-day history of low-grade fever and 1-day history of coughing. A particular severe round of coughing was followed by rapid ascending numbness and weakness. Upon reaching the Emergency Department, the patient was quadriplegic, C5 American Spinal Injury Association B. Magnetic resonance imaging of cervical spine revealed an extensive posterior epidural hemorrhage noted from C2 through T1, most pronounced at the C5-C6 level, causing mass effect and cord compression. Complete blood cell count revealed platelet count of 105; fibrinogen, 259. Prothrombin time and partial thromboplastin time were 1.13 and 26.2. He was taken emergently to the operating room for C4-C7 cervical laminectomy for evacuation of epidural hematoma. Significant bleeding was encountered, and platelets were transfused. No vascular malformation was noted on direct visualization. Postoperatively, he was extubated and briefly required oxygen via nasal cannula. Nasopharyngeal swabs taken on presentation were reported positive for COVID-19 on hospital day 8. Hematology was consulted and found no other source for his coagulopathy. By hospital day 16, he was able to walk 50 feet with rolling walker but required Foley catheter for persistent urinary retention. The patient was released to rehabilitation on hospital day 16, after he was documented to be asymptomatic from COVID-19 for 14 days.

For this patient, we suspect the pressure from severe coughing and the drop in platelet count due to COVID-19 combined with platelet dysfunction from aspirin use all contributed to his spinal stroke. We suggest that rare patients may be at risk for hemorrhagic stroke as a complication of COVID-19 and that screening for COVID-19 be considered as part of the stroke workup during the current pandemic.

ARTICLE INFORMATION

Affiliations

From the Division of Child Neurology, Department of Neurology, Indiana University School of Medicine and Indiana University Health, Indianapolis, IN (M.R.G.). Department of Neurosurgery, Community Hospital, Indianapolis, IN (G.C.H.).

Disclosures

None.

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