CLINICAL SNAPSHOT

Juvenile Embolic Stroke Complicating COVID-19 Infection

A 39-year-old man was admitted to the hospital 70 minutes after the acute onset of dysarthria. Examination revealed left hemiparesis and multimodal neglect; there was no disturbance of the senses of taste and smell. The patient had been in quarantine at home for 11 days because of a respiratory infection with a positive test for COVID-19. Laboratory findings prior to admission had included a mild polycythemia; on admission, the hematocrit was 53.4% and the hemoglobin concentration was 19.1 g/dL. There was also an elevated D-dimer concentration (2.1 mg / L; normal range, <0.5 mg / L). The patient was informed both of the findings relating to COVID-19 (*Figure a*) and of the neurological findings, and he gave his informed consent to treatment by systemic thrombolysis and therapeutic phlebotomy. Although his neurologic state improved, a follow-up scan revealed a demarcated infarct (*Figure b*). Further tests ruled out a cardiac embolic source, a patent foramen ovale, and a deep venous thrombosis, and the patient was discharged to his home. Even in the absence of severe pulmonary manifestations, the D-dimer concentration was pathological. This case indicates that patients with a SARS-CoV-2 infection and associated activation of the clotting system may be at elevated risk for stroke even if they are young.

Prof. Dr. Dr. med. Stefan Weidauer, Sankt Katharinen Krankenhaus, Akademisches Lehrkrankenhaus der Goethe-Universität-Frankfurt, Neurologische Klinik, Frankfurt am Main, stefan.weidauer@sankt-katharinen-ffm.de

Mona Tafreshi, Sankt Katharinen Krankenhaus, Akademisches Lehrkrankenhaus der Goethe-Universität-Frankfurt, Neurologische Klinik, Frankfurt am Main

Conflict of interest statement: The authors state that they have no conflict of interest.

Translated from the original German by Ethan Taub, M.D.

Cite this as: Weidauer S, Tafreshi M: Juvenile embolic stroke complicating COVID-19 infection. Dtsch Arztebl Int 2020; 117: 492. DOI: 10.3238/arztebl.2020.0492

a) Bilateral atypical infiltrates (arrowheads), worse on the right, with subpleural consolidation (arrow); b) Right temporoparietal territorial infarct in the posterior portion of the middle cerebral artery territory (arrow), with a dense vessel sign (arrowhead).