COVID-19 induced infarct of Splenium of the Corpus Callosum

Noor Ul Ain¹, Abu Hurera¹, Aleesha Kainat², Bhwana Agarwal¹

¹ Dept of Internal Medicine University of Pittsburgh Medical Center, McKeesport; ² University of Pittsburgh Medical Center, Mercy

BACKGROUND

• Infarction of the central splenium of corpus callosum is a rare entity.
• Existing literature identifies causes for splenium infarcts to include multiple sclerosis, Susac syndrome and more recent association is noted with Coronavirus disease of 2019 (COVID-19) (1).
• Patients with COVID-19 who usually present with corpus splenium infarct notably have pre-existing vascular risk factors which are postulated to be exacerbated by COVID-19-induced coagulopathy and inflammation (2).
• We describe a case of central splenium infarct in a patient with underlying vascular risk factors in the setting of acute COVID-19 infection.

CASE PRESENTATION

A 50-year-old male with history of type II diabetes mellitus, hypercholesterolemia and tobacco use disorder presented for evaluation of fever, malaise, and left arm numbness and tingling ongoing for six hours that later progressed to left-sided upper and lower extremity weakness.

PHYSICAL EXAMINATION

On initial assessment, he was found to be febrile to 102 °F. Physical examination revealed decreased strength of 3/5 in left upper and lower proximal and distal muscle groups, intact sensation to light touch, and no cranial nerve deficits.

INVESTIGATIONS AND IMAGING

• Patient tested positive for SARS-COVID-19 on initial lab work.
• Computed tomography scan of the head was unremarkable and computed tomography angiography of head and neck did not reveal large vessel occlusion.

CONCLUSION

Clinicians should be aware of the adverse effects of COVID-19 on the cerebrovascular system which includes splenium infarcts in patients with pre-existing vascular risk factors. Prompt evaluation can lead to improved morbidity and mortality in these patients.

Figure 1: Brain magnetic resonance imaging showing area of increased signal in the splenium consistent with acute infarct of the central splenium.

REFERENCES


CONTACT INFO:
EMAIL: ainn@upmc.edu

DISCLOSURE

• The authors report no conflicts of interest.