Background and aims During the course of the pandemic, it became clear that COVID-19 should be regarded as a systemic disease, particularly affecting the coagulation system with a high incidence of arterial thrombotic events (ATEs). The aim of this study was to investigate the incidence and characteristics of ATE in hospitalized patients with COVID-19 using clinical and imaging data.

Methods From the beginning of the COVID-19 pandemic in January 2020 to May 2021, databases of five German tertiary-care centers were searched for patients with coincidental ATEs associated with a COVID-19 disease. ATEs were examined regarding their localization, time of occurrence, radiographic characteristics, and associations with clinical data and laboratory parameters.

Results Out of 3267 COVID-19 patients, 102 patients (110 events; median age 76 (11–102)) presented with ATEs (3.1%). Localization included cardiac (n=51), brain (n=43), peripheral (n=7), intestinal (n=3), precerebral arteries (n=3), aorta (n=1), kidney (n=1), and spleen (n=1). Some ATE showed patterns of massive thrombi with long-floating portions (Figure 1). Elevated CRP (median 45 mg/L) and fibrinogen levels (median 477 mg/dL) prior to ATEs were detected. ATEs occurred at a median of 4 (-17–58) days after the onset of typical primary symptoms of COVID-19.

Conclusion COVID-19 is associated with an increased rate of ATEs generally affecting all areas of the arterial system and partially with an unusual radiographic pattern. Most clinically detectable ATEs occurred in arterial vessels of the brain and heart, although some emboli were detected in atypical locations and in young patients. Approximately the first week after symptom onset seems to be the main critical period for the occurrence of an ATE.

REFERENCES

Do you have any conflict of interest to declare?: No

A 55-year-old man presented with acute stroke. The patient had left hemiparesis. Angiography revealed that the patient had intracranial internal carotid artery atherosclerotic stenosis. Since both iliac arteries of the patient were occluded, we used radial access for the intervention. First of all, we performed angiography with sim 2 diagnostic catheter. We placed a 6Fr sheathed sheathless guide catheter into the common carotid artery with Amplatz rigid wire. We inserted the catheter sofia. We crossed the lesion with a microcathether supported 0.14 inch guidewire and performed 2.0x20 mm coronary balloon dilatation. Finally, we stented the lesion with a 3.0x20 mm balloon expandable coronary drug-eluting stent. We provided the TICI 3 flow. The patient was loaded with aspirin and clopidogrel. No complications occurred. The patient was discharged safely.

Introduction From the P1 segment of the posterior cerebral artery arise the posterior thalamoperforating arteries, responsible for blood supply to the medial part of the thalamus and paramedian portion of rostral midbrain, with bilateral or unilateral origin. Embryologically, the basilar tip will result in a cranial or caudal fusion, symmetrical or asymmetrical. If asymmetric, the posterior thalamoperforating arteries mostly arise from the larger calibre or cranial P1 segment.

Case presentation We report a case of a 74-year-old woman that presented with acute onset of sensitive aphasia, right hemianopia, right hemiparesis and hemisensory deficit and somnolence, progressing with depression of level of consciousness. Head CT showed no signs of acute stroke and CT angiography demonstrated fetal configuration of both posterior cerebral arteries with a focal occlusion of the P1 segment of