



## Massive left atrial thrombus in a patient with left atrial appendage closure

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### CASE DESCRIPTION:

An 80-year-old man presented to the emergency department because of sudden pain in his right leg. Medical history included atrial fibrillation (CHADS-VASc = 9) and percutaneous left atrial appendage closure (LAAC), which was performed 2 years ago and evaluated by repetitive post-procedural transesophageal echocardiography confirming adequate position of the device without device-related thrombus or residual flow. Diagnostic work-up revealed a Leriche syndrome and multiple renal infarctions due to partial thromboembolism of a massive, mobile thrombus situated in the left atrium with intermittent left-ventricular prolapse, despite uninterrupted intake of acetyl salicylic acid. As the patient was neurologically unremarkable, transfemoral thrombectomy was conducted to resolve critical leg ischemia and followed by consecutive open left atrial thrombectomy in order to prevent further thromboembolism. Postoperatively, the patient was admitted to an intensive care unit yielding prolonged weaning. Cranial computed tomography revealed chronic infarction gliosis in the left occipital and fronto-temporal lobe as well as hypodense areas in the right frontal and left occipital lobe, suggestive for subacute ischemic stroke.

### DISCUSSION:

Percutaneous LAAC is an emerging therapy for patients with atrial fibrillation and concomitant risk of thromboembolism. Our case describes the formation of a massive left atrial thrombus in a patient with previously conducted LAAC under ongoing antiplatelet therapy. The case raises the question whether LAAC and oral anticoagulation may need to be combined for optimal preventive therapy in very high-risk patients, as suggested by the recent LAAOS III study.<sup>1</sup>

### REFERENCES:

1. Whitlock RP, Belley-Cote EP, Paparella D, Healey JS, Brady K, Sharma M, et al. Left Atrial Appendage Occlusion during Cardiac Surgery to Prevent Stroke. *N Engl J Med.* 2021; 384(22):2081-91.



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