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IMAGE FOCUS

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Ischaemic stroke from a large mitral vegetation as clinical presentation of infective endocarditis

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Neurological complications appear in 20–40% of patients with left-side infective endocarditis; one-half of them correspond to ischaemic stroke, 20% to cerebral haemorrhage, and 30% to other complications (transient ischaemic attack, meningitis, infectious aneurysm, brain abscess). A 45-year-old woman presented with right-sided hemiparesis and dysarthria. She had a 5-day history of intermittent fever, malaise, and polyarthralgia. Patient denied drug abuse, recent dental procedure, or rheumatic disease history. On admission, her pulse rate was 100 per minute and body temperature 37.7°C. Physical examination revealed characteristic Janeway lesions and Osler nodules (Panel). No cardiac murmur was audible and lung sounds were clear. Laboratory tests revealed leukocytosis and elevation of inflammatory biomarkers. Evidence of acute infarct of the left anterior cerebral artery and multiple foci of cortical ischaemic events were noted in the brain magnetic resonance imaging (MRI). Transthoracic echocardiography showed a large vegetation of 15 mm localized in the anterior and posterior mitral valves (Supplementary data online) with no regurgitation. Emboli to the spleen and kidney were found in the abdomen computed tomography (Panel). Two blood cultures were positive for *Staphylococcus aureus* 12 h after admission, and directed therapy was instituted. Early mitral valve replacement was performed with a mechanical valve. While completing antibiotic treatment, she developed persistent headache, which prompted repeating the brain MRI, revealing an image consistent with a brain abscess in the left frontal area. The antibiotic regimen was modified with improvement in neurological symptoms and discharged to complete her antibiotic course at home.

Panel (A) Osler nodes and localized arthritis (*); (B) Janeway lesion; (C) right kidney embolism (CT); (D) large vegetation at mitral valve (TTE); (E) surgical resection specimens; (F) brain abscess (MRI).

Supplementary data are available at *European Heart Journal—Cardiovascular Imaging* online.

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