Open Access Original Research Article

MedPeer Publisher
Abbreviated Key Title: MedPeer
ISSN : 3066-2737
homepage: https://www.medpeerpublishers.com

ISCHAEMIC STROKE REVEALING INFECTIVE ENDOCARDITIS: A CASE REPORT

DOI: 10.70780/medpeer.000QGMW

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ABSTRACT

Ischemic stroke is most often caused by an embolism of cardiac origin or an atheromatous plaque. Sometimes, it can represent a rare revealing manifestation of infectious endocarditis, particularly in young individuals. Through this clinical case of a 27-year-old patient initially hospitalized in a neurology department for the management of ischemic stroke, we will discuss the findings. During the etiological assessment, an echocardiography was performed, revealing significant mitral regurgitation, suggesting infectious endocarditis without any prominent infectious symptoms initially.

KEYWORDS

ischemic stroke, infectious endocarditis, young subject.

MAIN ARTICLE

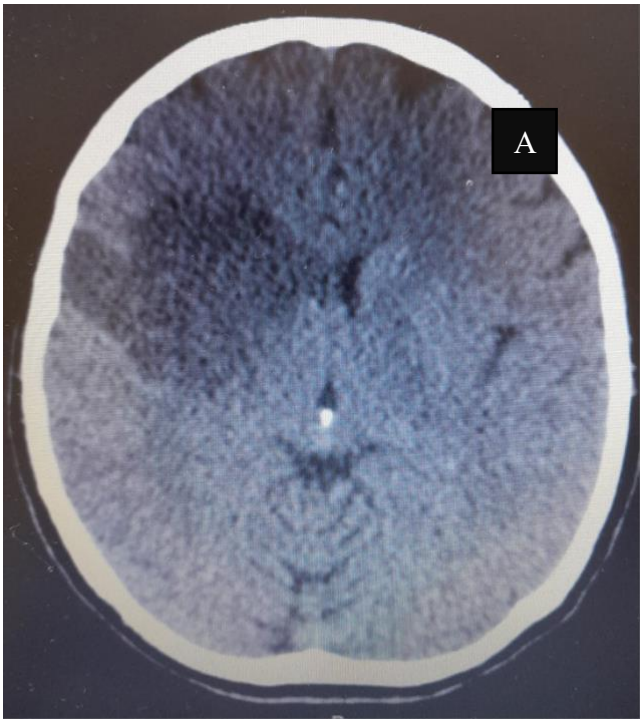
Introduction

Strokes are common (20 to 40%) neurological complications of infectious endocarditis and are associated with an increase in morbidity and mortality. Stroke represents the second leading cause of death after heart failure in cases of endocarditis. The territory of the middle cerebral artery is the most frequent location in 90% of cases. Antibiotic therapy is the cornerstone of treatment. We will report a case of infectious endocarditis revealed during a cardiological assessment in the context of an ischemic stroke, initially hospitalized in neurology in a young patient

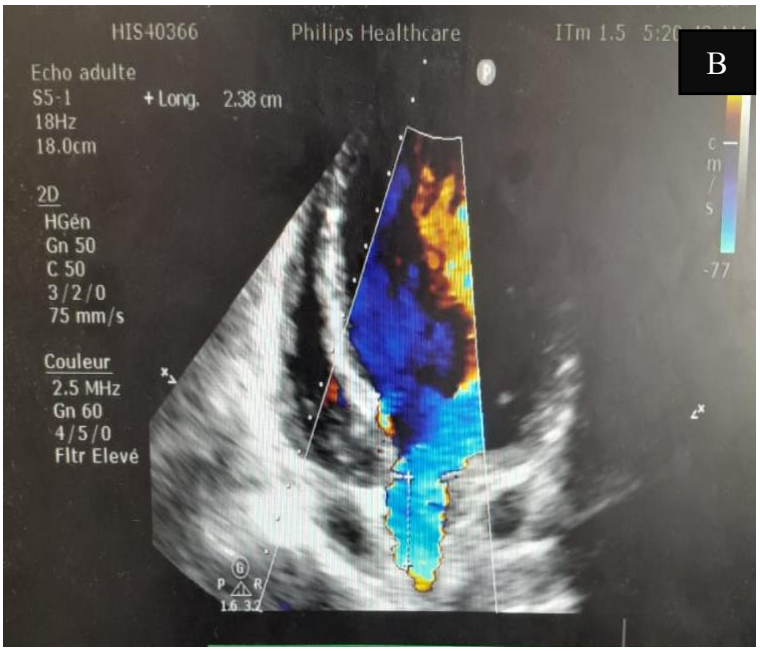
Patient and observation

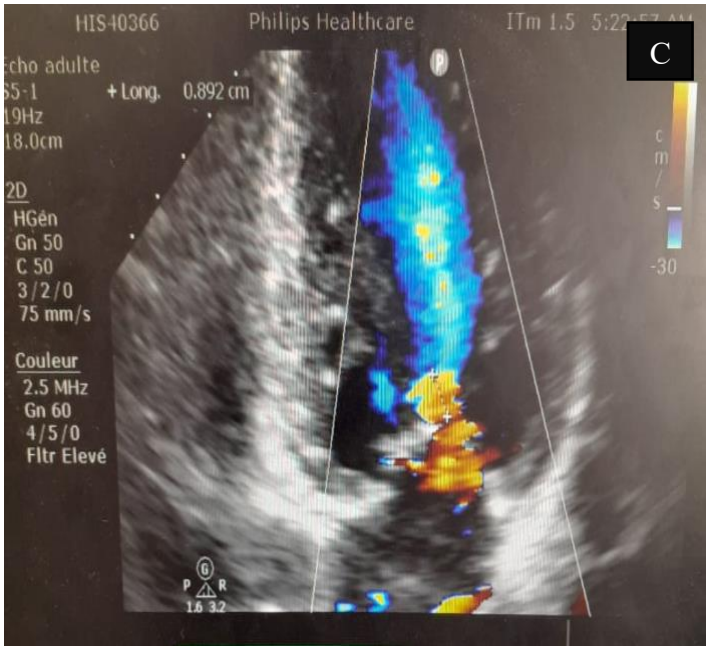
This is a 27-year-old patient who was hospitalized in the Neurology Department of the Specialty Hospital at the Rabat University Hospital Center for sudden-onset heaviness in the left side of the body, without any loss of consciousness or fever. In his medical history, there is no mention of recurrent tonsillitis during childhood, no acute rheumatic fever, and no underlying heart disease. The clinical examination revealed a good general condition, normal consciousness, sensory-motor deficit on the left side of the body without swallowing difficulties, poor oral hygiene with multiple cavities, and no skin or joint involvement. Additionally, there was a systolic regurgitation murmur graded 4/6 at the mitral area radiating toward the axilla. The patient was afebrile but presented with a biological inflammatory syndrome (CRP at 89 mg/L).

White blood cell count at 17,000. Given this presentation, a brain CT scan was immediately performed, which revealed an ischemic stroke in the superficial and deep territory of the right middle cerebral artery, with signs of hemorrhagic infarction. As part of the etiological assessment of the stroke, the patient was referred to the Cardiology department for a transthoracic echocardiography, which revealed mitral-aortic lesions complicated by an abscess in the body of the mitral valve and severe aortic regurgitation, suggesting infectious endocarditis. The diagnostic hypothesis of infectious endocarditis complicated by ischemic stroke was confirmed after discussion with neurologists, and the patient was transferred to Cardiology for further management.



A. *Brain CT scan indicating a right middle cerebral artery ischemic stroke*





B. Severe aortic regurgitation due to perforation regurgitation of the posterior cusp

C. Severe mitral

Discussion

Strokes represent a common complication in infectious endocarditis, sometimes with a severe prognosis. These complications are secondary to the migration of a vegetation into the cerebral circulation, which can lead to various clinical manifestations : embolic ischemic strokes, meningitis, cerebral hemorrhages, and brain abscesses. Ischemic stroke as a revealing sign of infectious endocarditis is quite rare according to the literature review, with only a few reported cases. Generally, neurological complications occur during the course of already diagnosed infectious endocarditis or due to delayed diagnosis in atypical clinical presentations, as in the case of our patient, who did not have a fever upon hospitalization apart from a cardiac murmur detected during auscultation. This should often prompt us, in the etiological investigation of stroke, especially in young patients with a cardiac murmur, to consider infectious endocarditis in order to rule it out and avoid delaying its diagnosis given the complications it could cause.

Conclusion

Infectious endocarditis is a rare condition that can lead to severe neurological complications, sometimes with life-threatening or functional prognoses. In the presence of a sudden onset of sensory-motor deficits along with a cardiac murmur, even without an associated fever, infectious endocarditis should be considered. This should prompt the performance of a Doppler echocardiography to avoid delaying its diagnosis and management.

ACKNOWLEDGEMENTS

The authors have no acknowledgements to declare and report no conflicts of interest.

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