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Case Report

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Left Atrium Myxoma Revealed by an Ischemic Stroke: About a Case

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Abstract

Introduction: Left atrial myxoma is a rare benign tumor. It can be an embolic complication such as an ischemic stroke.

Observation: It was a 48 years old patient who was referred to our unity for the etiological investigation of an ischemic stroke. She did not have personal medical and surgical history. She had a recent right hemiplegia. The cardiac auscultation found a mitral diastolic murmur. The brain CT showed a recent ischemic stroke in the superficial and deep left sylvian territory. The transthoracic echography revealed a myxomatous mass, responsible of an obstacle of the left ventricular filling. Anticoagulation by antivitamin K (AVK) had been initiated and a resection of the mass indicated.

Conclusion: The left atrial myxoma is a rare benign tumor whose mode of revelation can be an embolic complication. The Echocardiography is reference imaging modality in diagnosis with a high sensitivity.

Keywords

Left Atrial Myxoma; Embolism; Ischemic Stroke

Introduction

The left atrial myxoma is a rare benign tumor. It is the most common cardiac primary tumor. It is more often found in women [1]. His modes of revelation are variable. The systemic embolization is a common complication of cardiac myxomas, often involving the cerebrovascular system [2]. The systemic embolization rate reported is between 30 to 45% of myxomas of the left atrium and this frequency can go up to 64% when it extends to the left ventricle [3]. The left atrial myxoma is responsible for only 0.5% of cases of ischemic stroke [2,3].

We report a case of a left atrial myxoma revealed by a stroke in a woman.

Case Presentation

It was a 48 years old patient who was referred to our unity for the etiological investigation of an ischemic stroke. She did not have personal medical and surgical history. She had a recent right hemiplegia. At admission, she had stable hemodynamics. The cardiac auscultation found a mitral diastolic murmur.

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The brain CT revealed areas of hypodensity in cortical, subcortical fontal and temporal territories testifying a recent ischemic stroke in the superficial and deep left sylvian territory (**Fig-1**). The EKG at admission was normal (**Fig-2**).

At biology there was a nonspecific biological inflammatory syndrome with neutrophil leukocytosis at 14500 / mm^3, CRP at 46mg / l; an accelerated sedimentation rate.

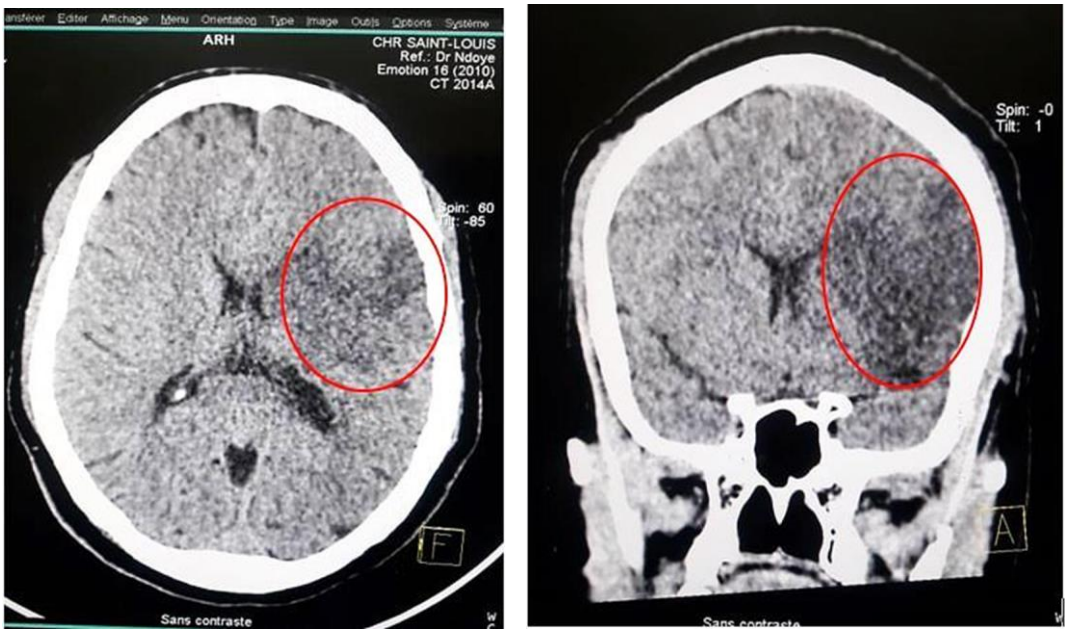

Fig-1:

Brain CT revealing a recent ischemic stroke in in the superficial and deep left sylvian territory (red circle)

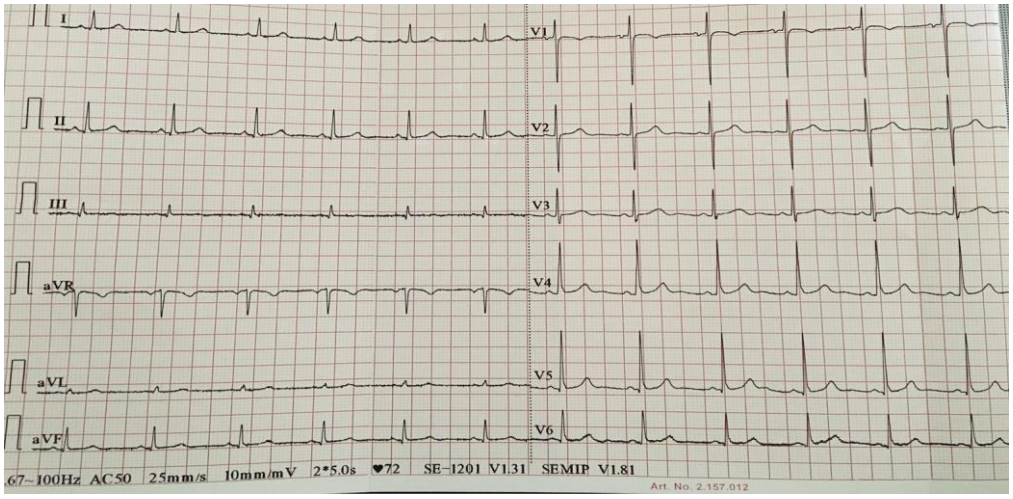

Fig-2: The EKG at admission

The transthoracic echography revealed a well-circumscribed myxomatous mass in the left atrium, with septal insertion, heterogeneous, irregular, measuring 58 mm x 37 mm, prolapsing between the mitral leaflets (**Fig-3A**).

This mass was responsible for an obstacle to left ventricular filling with a mean gradient of 12 mm Hg (**Fig-3B**). The mitral leaflets were normal.

In this context of embolic complication of this myxomatous mass, we initiated anticoagulant treatment with AVK (Acenocoumarone). The patient was subsequently referred to cardiac surgery for the mass resection.

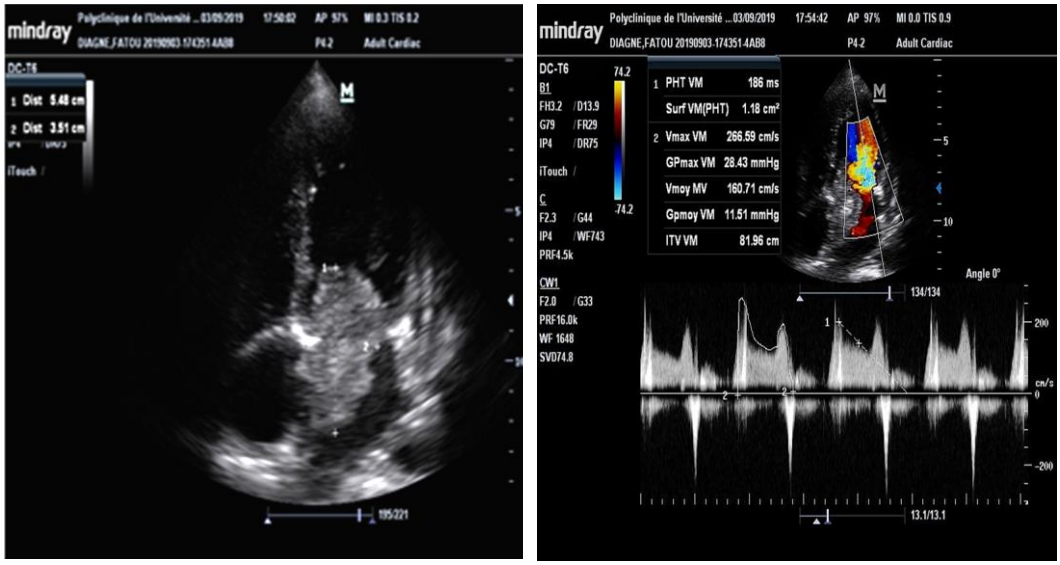

Fig-3:

Transthoracic echography: A - apical 4 cavities founding a prolapsing myxomatous mass in the left ventricle. B- Doppler continuous and color on the transmitral flow objectifying an obstacle to the left ventricular filling.

Discussion

The cardiac myxoma is a rare tumor, with an estimated incidence of 0.5 per million people [4]. The main clinical manifestations are mainly related to obstruction and systemic embolization [5].

The embolic accidents reveal the myxoma in 30 to 40%. It may be thrombotic material detached from the surface of the myxoma, a fringe of the myxoma, or even broken whole myxoma at the level of its pedicle [3].

The echocardiography is the imaging modality of choice for the detection of cardiac myxomas with excellent sensitivity: 95% in transthoracic ultrasound and 100% in transesophageal echography [5]. It determines location, size, shape, invasiveness and mobility [6]. It also brings important data to the surgeon thus allowing a planning of the surgical resection of the mass [7].

In our case, it was preponderant in the diagnosis of the myxomatous mass specifying the characteristics but also to evaluate by continuous Doppler, the severity of the obstacle left ventricular filling. The latter, associated with the heterogeneous and erratic nature of the mass, seems to be the mechanism of ischemic stroke in our patient. Indeed, the voluminous and irregular nature of the mass increases the risk of rupture of the mass with consequent tumor embolization. On the other hand, the blood stasis caused by the obstacle to the filling of the left ventricle is responsible of thrombus development.

This thrombus can also migrate to the cerebral vessels [8]. Thus, an excisional surgery must be quickly considered to limit the risk of embolization to other organs and sudden death. It remains the standard treatment for myxoma with removal of a substantial portion of healthy and adjacent endocardial tissue. Postoperative survival is excellent [3-5]. While waiting for a mass resection surgery in our patient, we initiated an anticoagulant treatment with the antivitamin K. This choice was guided in this context of stroke by the fact that the mass caused an obstacle filling of the ventricle thus promoting the thrombus development. When the time for surgery is long, anticoagulant therapy may be proposed but only has impact on thromboembolic migrations and does not prevent tumor embolism [10].

Conclusion

The left atrial myxoma is a rare benign tumor whose mode of revelation may be an embolic complication. It can compromise the functional and vital prognosis.

The echocardiography is the imaging modality of choice in the diagnosis of myxoma with a high sensitivity. The standard treatment remains the surgical excision of the mass.

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