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Case report

Left atrial myxoma in a patient with atrial fibrillation following ischemic stroke – Case report

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ABSTRACT

Introduction: Myxoma is the most common tumor of the heart, usually localized in the left atrium. It usually occurs in subjects between the third and sixth decade of life. It causes systemic and cardiovascular symptoms. It may be the cause of thromboembolic events.
Aim: The aim of this work is to present a case of ischemic stroke as a first clinical manifestation of myxoma and draw attention to diagnostic problems of left atrial lesions.
Case report: A 63-year-old female following ischemic stroke with mixed aphasia and atrial fibrillation was admitted for diagnosis of pathological left atrial lesion.
Results and discussion: Histopathological examination confirmed left atrial myxoma. Differential diagnosis of pathological lesions in heart cavities is often very difficult. Myxoma, which is a benign cardiac tumor, is frequently confused with thrombus which prevents the implementation of proper treatment and causes various cardiovascular complications, thromboembolic events and systemic symptoms.
Conclusions: In case of ischemic stroke and atrial fibrillation in subjects over the age of 60 years myxoma should be considered as a potential cause of these clinical conditions.

1. Introduction

Myxoma is a benign cardiac tumor, most frequently localized in the left atrium.[1–8] The clinical manifestation is non-specific so it is frequently diagnosed after severe complications occur.[7] Cardiac myxoma may be a source of emboli to each component of cardiovascular system.[2–4,6–8] Atypical systemic symptoms and small thromboembolic foci may become unnoticed. It concerns particularly subjects above 60 years of age, in whom this type of tumor is rare.[7]

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2. Aim

The aim of this work was to present a case of ischemic stroke as a first clinical presentation of myxoma in a patient with previously untreated atrial fibrillation. The paper also discusses the issue of diagnostic problems of left atrial lesions.

3. Case report

The article was prepared based on patient history and physical examination, laboratory and imaging results of a patient admitted to the Department of Cardiology and then to the Department of Cardiac Surgery of the Provincial Specialist Hospital. Patient, a 63-year-old female 2 weeks after ischemic stroke, was admitted to the Department of Cardiology of the Provincial Specialist Hospital for diagnosis of heterogeneous echogenic mass in the left atrium. The patient had a history of mixed aphasia, atrial fibrillation of unknown duration with no anticoagulant treatment prior to stroke onset.

Physical examination on admission revealed good clinical condition, verbal contact incoherent, irregular heart rate of approximately 80 bpm, moderately loud heart tones, clear, normally accentuated, without murmurs. Thyroid palpable, slightly enlarged left lobe. No significant abnormalities were observed in any other organs or systems.

Laboratory results on admission showed following abnormalities: slightly increased glucose level – 103 mg/dL (normal range: 60–99 mg/dL), creatinine – 1.0 mg/dL (normal range: 0.5–0.9 mg/dL), increased concentration of alanine aminotransferase – 161 U/L (normal range: 10–35 U/L), aspartate aminotransferase – 110 U/L (normal range: 10–35 U/L), decreased estimated glomerular filtration rate – 56 mL/min (normal range >60 mL/min), as well as decreased concentration of thyroid stimulating hormone – 0.24 IU/mL (normal range: 0.27–4.2 IU/mL).

On the same day transthoracic echocardiography was performed, which revealed a 3.5 × 2.5 cm left atrial structure with heterogeneous echogenicity, probably located outside the heart. Cardiac chambers were not dilated. Wall thickness and myocardial contractility of the left ventricle were normal. Heart valves with no significant changes. Pressure gradients through valve planes were normal. No fluid in pericardial cavity.

Due to excess body fat no sufficient quality images were obtained for a reliable assessment of left atrial mass, thus the patient was referred for a CT scan of the chest.

CT angiography, conducted on a Somatom 64 (Siemens, Germany), before and after intravenous administration of contrast agent revealed a tumor mass in the left atrium. A soft-tissue mass, size 3.4 × 3.0 cm, with smooth contours and internal linear calcifications visible on non-contrast images (Fig. 1). It showed mean contrast enhancement (Fig. 2), piecewise merged with the interatrial septum over a width of about 12 mm (Fig. 3). It was located within the mouth of the right upper pulmonary vein, slightly narrowing it. Images most probably corresponded to left atrial myxoma.

On the same day coronary angiography using the left transradial artery access was performed and no significant coronary artery stenosis was revealed. The patient was transferred to the Department of Cardiac Surgery for an urgent surgical intervention.

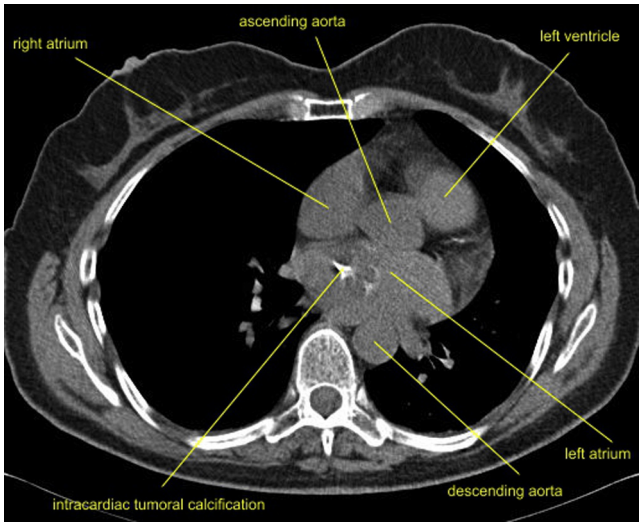

Fig. 1 – CT image before intravenous contrast administration with visible calcifications in a tumor mass.

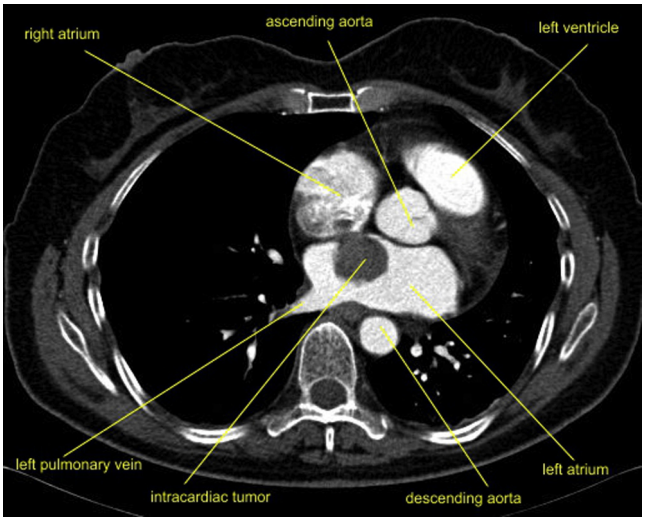

Fig. 2 – CT image after intravenous contrast administration, transverse plane, tumor mass in the left atrium.

On the following day, left atrial tumor, macroscopically resembling myxoma, was removed with the use of cardiopulmonary bypass. During postoperative period cardiovascular system was supported with continuous doses of norepinephrine and 2 units of platelet concentrate were transfused. No complications were observed, drains were removed on the second postoperative day. Due to persistent atrial fibrillation despite pharmacological treatment, anticoagulant therapy was started (acenocumarole) and therapeutic INR levels were achieved.

Histopathological examination revealed tumor measuring 3.5 × 3.0 × 2.2 cm, creamy-brown and shiny in cross-section, with calcifications. Microscopically cardiac myxoma with local