











Thrombolitically treated ischaemic stroke as first manifestation of left atrial myxoma

Udar niedokrwienny mózgu leczony trombolitycznie
jako pierwsza manifestacja śluzaka lewego przedsionka

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A 46 year-old patient, who had previously not reported any health problems, was admitted to the department of neurology due to a sudden onset of aphasia and upper right limb paresis. Detailed neurological examination ascertained: no verbal or mental responsiveness, mixed, predominantly motor, aphasia, 3/5 upper right limb paresis. Computed tomography (CT) of the head, performed immediately after admission, revealed no intracranial haemorrhage or fresh ischaemic lesions. CT angiography of brain-supplying and intracerebral arteries showed no discernible narrowing of the vessels. The patient was qualified for thrombolytic therapy; in total, she was administered 75 mg of alteplase. Follow-up CT examination revealed disseminated, supratentorially and infratentorially localised ischaemic lesions (Figure 1A, B). Her history identified no risk factors for vascular diseases. Laboratory tests for suspected “young stroke” risk factors (*i.e.* activity of C and S proteins, fibrinogen, homocysteine and antithrombin III in the plasma) were also performed; all results were within acceptable limits.

Diagnostic procedure was expanded to include transthoracic echocardiography (TTE), which imaged an additional 50 × 35 mm hyperechogenic structure in the left atrium (LA) chamber, with uneven edges and non-uniform echogenicity, strongly mobile, blocking the mitral valve orifice, with pedicle in the vicinity of the fossa ovalis (Figure 1C–F). Moreover, the examination indicated good, symmetrical left ventricular systolic function with an ejection fraction of 60%, and good right ventricular systolic function.

Due to the results of the echocardiogram, the patient was transferred to the cardiac surgery department for urgent surgical treatment of the LA tumour. The procedure was performed with extracorporeal circulation, using cardioplegia. During the surgery, after the LA was opened, a gelatinous tumour surrounded by a glossy film, connected to the tissues of the interatrial septum (IAS) via a pedicle, was revealed. Complete removal of the tumour along with the pedicle necessitated removal of the IAS; the cavity after the removed septum was closed with a prolene suture.

Histopathological examination led to a diagnosis of cardiac myxoma. Follow-up TTE examination confirmed the positive result of the procedure. On the ninth day after surgery, the patient was discharged in a good overall condition, with the recommendation of periodic checkups in the cardiology and neurology departments.

Myxoma is the most common primary benign tumour of the heart. It occurs more frequently in women, mainly in their third, fourth, fifth and sixth decades. It is typically located in the LA, in contact with the IAS, with pedicle in the vicinity of the fossa ovalis. It is characterised by non-uniform echogenicity, with areas of increased transparency and calcification. A myxoma grows fairly quickly and can cause heart failure, arrhythmia, embolic incidents or general inflammatory response. TTE is essential in diagnosis. The treatment of choice is complete removal of the tumour via cardiac surgery.

The presented case illustrates an initially asymptomatic growth of myxoma in an adult with no risk factors for ‘young stroke’ or vascular diseases, which first manifested itself via an ischaemic stroke. The important role of the administered thrombolytic therapy with good results *vis-à-vis* a stroke of this aetiology should be emphasised. TTE examination was essential in diagnosing the cause of the stroke. Also noteworthy is the fact that in such cases cardiac surgery is performed as a matter of urgency due to the high risk of further embolic complications and obliteration of the atrioventricular orifice by the tumour.

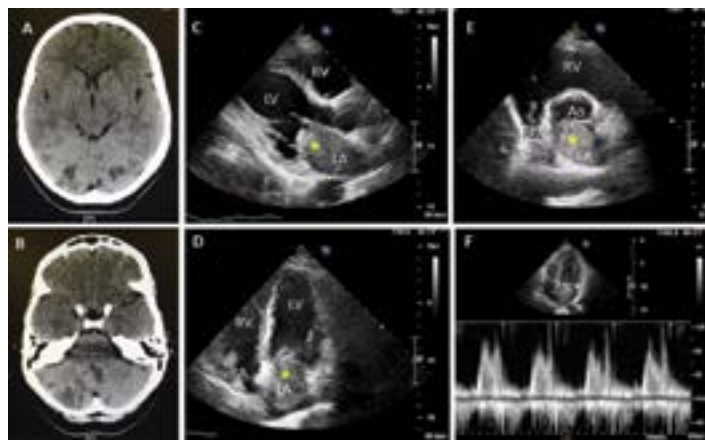


Figure 1A–B. Computed tomography of the head – areas of lowered density in both cerebellar hemispheres, larger in right hemisphere, in head of caudate nucleus, and small hypodense lesion subcortically on left frontoparietal border; **C.** Transthoracic echocardiography, parasternal long-axis view – additional mass in left atrium (LA) chamber penetrating into mitral valve orifice; **D.** Transthoracic echocardiography, apical four-chamber view – additional, hyperechogenic structure in LA chamber, with uneven edges and non-uniform echogenicity, penetrating into mitral valve orifice, with pedicle in vicinity of fossa ovalis (marked with asterisk); **E.** Transthoracic echocardiography, parasternal short-axis view, vascular level; **F.** Transthoracic echocardiography, pulsed-wave Doppler flow through mitral valve; RV – right ventricle; LV – left ventricle; RA – right atrium; Ao – aorta