

Heart involvement in Churg-Strauss syndrome

Zajęcie serca w zespole Churga-Strauss

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A 41-year-old female with a history of allergic asthma, sinusitis, and chronic allergic rhinitis was admitted because of chest pain, exertional dyspnoea, fever, numbing in the left leg, sweating, and palpitations. Electrocardiogram showed sinus tachycardia with non-specific T-wave changes. Blood examination revealed increased values of C-reactive protein, troponin-I, hypereosinophilia and elevated erythrocyte sedimentation rate. Chest X-ray revealed enlarged heart silhouette. On transthoracic echocardiography (TTE) global impairment of left ventricular (LV) systolic function (LVEF ~45%) and pericardial effusion up to 22 mm (Fig. 1A [diastole], 1B [systole], arrows) with signs of heart compression was seen. 1.5T cardiac magnetic resonance was performed for clarification of diagnosis, and it confirmed the presence of pericardial effusion (Fig. 1C, arrows), LV dilatation, and systolic impairment. On early (Fig. 1D, arrows depict pericardial effusion) and late gadolinium enhancement images LV subendocardial circular hyperenhancement with parietal thrombi was present (Fig. 1E, F,

arrows point to the effusion, arrowheads to parietal thrombi). Computed tomography of paranasal sinuses showed hyperplastic mucosa in maxillary sinuses (Fig. 1G, arrows), histological examination of which revealed infiltration with eosinophils (Fig. 1H, black arrow). On the basis of the above-mentioned findings the diagnosis of Churg-Strauss syndrome was established. After two weeks of treatment with antibiotics, prednisolone, and nonsteroidal anti-inflammatory drugs the patient had no symptoms, normalisation of inflammatory markers, and no pericardial effusion but had evidence of apical LV thrombus on TTE (Fig. 1I, arrow). Anticoagulation was initiated together with treatment with prednisolone and azathioprine. On follow-up TTE five months after discharge no evidence of apical thrombus was seen (Fig. 1J). At three years, the patient is stable without exacerbations, and is receiving prednisolone and azathioprine as well as standard heart failure treatment.

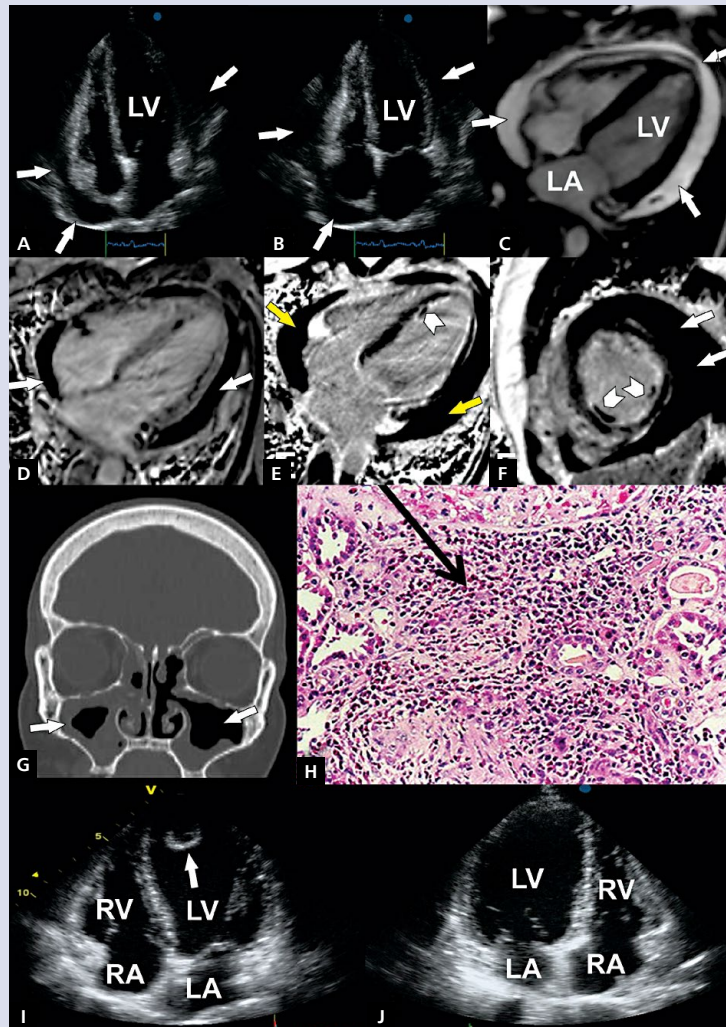


Figure 1. Imaging and histological data of 41-year-old female with Churg-Strauss syndrome; **A, B.** Transthoracic echocardiography; **C.** Cardiac magnetic resonance cine image; **D, E, F.** Early and late gadolinium enhancement images; **G.** Computed tomography; **H.** Histological examination; **I, J.** Transthoracic echocardiography. Detailed description — see text; LA — left atrium; LV — left ventricle; RA — right atrium; RV — right ventricle

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