

Right ventricle tumour presenting with progressive heart failure symptoms

Guz prawej komory jako przyczyna narastających objawów niewydolności serca

Maciej Haberka¹, Marcin Malinowski², Zbigniew Gąsior¹, Marek Deja²

¹2nd Department of Cardiology, Medical University of Silesia, Katowice, Poland

²Department of Cardiac Surgery, Medical University of Silesia, Katowice, Poland

A 49-year-old woman without prior cardiovascular disease was admitted to the Department of Cardiology due to rapidly progressive symptoms of general weakness, fatigue, presyncope and dyspnoea (NYHA III, CCS 0). The patient had a long-standing history of cancer with a primary presentation 15 years before (liposarcoma of the right thigh treated with surgery, chemotherapy and radiotherapy). Two-dimensional transthoracic echocardiography (2D-TTE) revealed a large tumour of 6 × 3 cm in the right ventricle (RV) with a majority of the mass located in the RV outflow tract and a mobile mass in the inflow part swinging with the blood flow into the right atrium (RA). Both cavities (RV and RA) were significantly enlarged with a moderate compression of the left atrium and left ventricle (preserved systolic function). Doppler examinations showed a significant gradient through the tricuspid and pulmonary valves with severe tricuspid regurgitation and increased RV systolic pressure (70–75 mm Hg). 3D-TTE did not provide the necessary additional data, which was obtained using the following multimodality imaging: cardiac computed tomography and cardiac magnetic resonance. Afterwards, the patient was qualified for cardiosurgery, where the tumour mass was completely removed with a patch reconstruction of the RV free wall and a tricuspid annuloplasty due to significant residual tricuspid regurgitation. There were no clinical complications of the surgery, and the histopathological examination confirmed the liposarcoma nature of the mass. The woman is in a good general condition (NYHA 0/I) during a six-month follow-up, with no cancer recurrence (Figs. 1–4).



Figure 1. Parasternal long axis view of the tumour mass within the inflow tract of the right ventricle (RV); LA — left atrium; LV — left ventricle



Figure 2. Parasternal short axis view, the mobile part of the mass swinging into the right atrium (RA); RV — right ventricle



Figure 3. Parasternal short axis view of the right ventricle outflow tract (RVOT) obstruction with the large tumour mass; PV — pulmonary valve



Figure 4. Apical four-chamber view: colour Doppler shows a significant gradient in the right ventricle (RV) inflow due to the tumour mass swinging into the right atrium (RA); LA — left atrium; LV — left ventricle

Address for correspondence:

Maciej Haberka, MD, PhD, 2nd Department of Cardiology, Medical University of Silesia, ul. Ziołowa 45–47, 40–635 Katowice, Poland, tel: +48 32 359 87 17, e-mail: mhaberka@op.pl

Conflict of interest: none declared