CLINICAL VIGNETTE

Left ventricular intramyocardial mass in a 28-year-old asymptomatic miner

Ewa Szymczyk[1], Grzegorz Religa[2], Tomasz Kaszczyński[2], Piotr Lipiec[1], Paulina Wejner-Mik[1], Jarosław D. Kasprzak[1]

[1]Department of Cardiology, Medical University of Lodz, Lodz, Poland
[2]Department of Cardiac Surgery, Bieganski Hospital, Lodz, Poland

We report a case of a 29-year-old asymptomatic miner referred for echocardiographic examination due to abnormal electrocardiographic findings (negative T waves in leads II, III, aVF, and V3–V6) incidentally observed during a periodic health check-up. Transthoracic echocardiography (TTE) revealed an abnormal, hyperechogenic protruding mass in the left ventricular apex, 41 × 58 × 34 mm in size (Fig. 1A). Global left ventricular systolic function was normal. Tissue Doppler systolic strain was absent in the tumour (Fig. 1B) and a contrast examination with SonoVue (Bracco International B.V., Amsterdam, Netherlands) suggested vascularity (Fig. 1C). Coronary angiography showed no calcifications or evident feeding vessels of the tumour; coronary arteries were normal. Cardiac magnetic resonance suggested a well-defined mass without pericardial infiltration showing early gadolinium enhancement (Fig. 1D). Serum cancer markers were negative, and a primary cardiac tumour was the tentative diagnosis. The patient was referred for cardiac surgery, which confirmed a well-circumscribed whitish transmural tumour (Fig. 1E), which was surgically resected. TTE confirmed good early outcome of the procedure with residual thrombus between the Dacron patches in the apex. The patient was discharged home on the seventh day after the procedure. Control TTE performed after two months documented good surgical outcome with significant reduction of the thrombus size (Fig. 1F). The final pathologic diagnosis was benign hamartoma built of mature cardiac myocytes. After 18 months of follow-up the patient remains asymptomatic. Primary cardiac tumours are a rare entity whose incidence, according to surgery and autopsy reports, is up to 0.7% of all cardiac tumours and intramyocardial masses, with differential diagnosis including metastases, thrombi, or variants of hypertrophic cardiomyopathy [1]. Surgery remains the treatment of choice due to diagnostic ambiguity and arrhythmic risk.

References

1. Dell'Amore A, Lanzanova G, Silenzi A, et al. Hamartoma of mature cardiac myocytes: case report and review of the literature. Heart Lung Circ. 2011; 20(5): 336–340, doi: 10.1016/j.hlc.2011.01.015, indexed in Pubmed: 21354369.

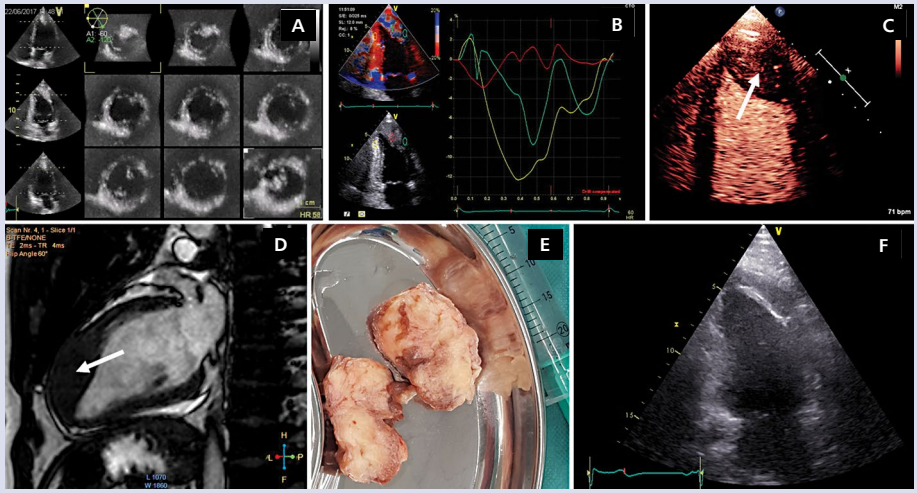

Figure 1. **A.** Transthoracic three-dimensional echocardiography; **B.** Tissue Doppler echocardiography (the red curve indicates very low values of systolic strain at the tumour site; green and yellow curves present normal values of systolic strain in anterior and posterior left ventricular walls, respectively); **C.** Contrast echocardiography; **D.** Cardiac magnetic resonance; **E.** Intraoperative photography of the excised tumour; **F.** Control transthoracic echocardiography

Address for correspondence:
Ewa Szymczyk, MD, PhD, Department of Cardiology, Bieganski Hospital, Medical University of Lodz, ul. Kniaziewicza 1/5, 91–347 Łódź, Poland, tel/fax: +48 42 251 60 15, e-mail: eszymczyk@ptkardio.pl

Conflict of interest: *none declared*