An unusual case of systolic murmur and recurrent syncopes

Julija Klimusina1*, Sara Rezzonico2, Fabio Sartori1, Luca Mazzucchelli3, and Augusto Gallino1

1Department of Cardiology, Ospedale San Giovanni, Soleggio, Bellinzona 6500, Switzerland; 2Department of Internal Medicine, Ospedale San Giovanni, Bellinzona, Switzerland; and 3Cantonal Pathology Institute, Locarno, Switzerland

*Corresponding author. Tel: +41 797225913, Fax: +41 918118636, Email: julija.klimusina@eoc.ch

A 76-year-old man was admitted to the hospital due to recurrent syncopes on exertion without prodromes. He had a history of cancer of gastro-oesophageal junction treated with oesophagectomy 7 years before, and known to be on remission until the index event.

Physical examination revealed a harsh (5/6) holosystolic murmur predominantly at the left upper sternal border. ECG showed sinus bradycardia with a bifascicular block. Echocardiography demonstrated a solid mass (arrows) protruding in the right ventricular outflow tract (RVOT) resulting in the obstruction of the lumen with a maximal gradient of 65 mmHg as well as minimal pericardial effusion (Panels A and B, Supplementary material online, Movie SI, Ao, aorta). Thoraco-abdominal CT confirmed the presence of the solid mass compressing the RVOT with invasion into the lumen (Panel C, arrows) without other suspected masses or lymphadenopathies. 18FDG-PET showed pathologic uptake only at the level of the mass (Panel D, arrow). To clarify the diagnosis right heart catheterization was cautiously performed successfully obtaining two biopsy specimens [Panel E, Supplementary material online, Movie SII. The biopsy catheter at the level of the mass (large arrow) and the narrowed lumen of the RVOT (small arrows) in diastole; PA, pulmonary artery; RV, right ventricle]. Histological examination revealed gastric carcinoma cells infiltrating the myocardium (Panel F). Thus, the diagnosis of single metastasis of gastric carcinoma was established. The patient refused any rescue or palliative treatment. He died suddenly 3 weeks later.

One should be aware of possible late cardiac manifestations of non-cardiac tumours and consider them for the differential diagnosis even in the absence of other evidence of disease recurrence.

Supplementary material is available at European Heart Journal online.