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We present a case of a 37-year-old male patient who had hemoptysis combined with fatigue and exertion that were present for a few months, for which he underwent further evaluation. The only comorbidity was epilepsy as a consequence of head trauma in a car crash 18 years ago, which was well controlled under therapy.

Computed tomography (CT) discovered a heart tumor located mainly in the right atrium measuring 72 × 45 mm but also spreading through the patent foramen ovale into the left atrium measuring 15 × 15 mm in size (Figure 1A). A small oval tissue consolidation was registered in the lingula of the left lung, 17 mm in diameter, with a filling defect in the corresponding segmental artery, altogether indicating embolism. Echocardiography confirmed the presence of a biatrial tumor that mostly resembled myxoma. It was attached to the interatrial septum with a stalk, freely moving and partially passing through the tricuspid valve, consequently compromising normal blood flow (Figure 1B, C; Supplementary material, *Video S1*). All

laboratory findings were normal and coronary arteries on CT coronary angiography were without lesions. The heart team indicated surgical removal of the tumor.

Surgery was performed in general endotracheal anesthesia through total median sternotomy. Pericardiotomy revealed a normocardic heart in sinus rhythm, situs solitus, normal in size and systolic function, with no visible scar tissue. Further surgery was performed on partial cardiopulmonary bypass, using intermittent antegrade hyperkalemic solution (St. Thomas). The interatrial septum was approached directly through the right atrium which was normal in size, but entirely filled with tumor mass. The tumor was yellow/gray in color, with a papillary surface and a gelatinous structure, showing signs of focal hemorrhage (Figure 1D). The tumor mass was completely removed. Total aortic cross-clamping time was 37 minutes, with a total bypass time of 50 minutes.

The postoperative course was uneventful. Control echocardiography showed preserved systolic and diastolic function of the heart without pericardial effusion. Microscopic analysis of the tumor displayed typical features and confirmed the diagnosis of myxoma (Figure 1E). The patient was discharged on the 6th postoperative day in good general condition with acetylsalicylic acid, along with nebivolol and hydrochlorothiazide for grade 1 hypertension with tachycardia.

Although myxomas are the most common heart tumors, they are a rare entity. Their incidence is 0.5 per million people per year [1]. About 75% of myxomas occur in the left atrium, 15-20% in the right atrium, 3%–4% in the left or right ventricle, and <2.5% in both atria [2]. Myxomas involving both atria are usually independent of each other [3]. Our case is unique because it is a myxoma originating from the right atrium, passing through the foramen ovale and affecting the left atrium. It is the rarest form of biatrial myxoma, the so-called genuine biatrial myxoma [3].

Supplementary material

Supplementary material is available at https://journals.viamedica.pl/kardiologia_polska

Article information

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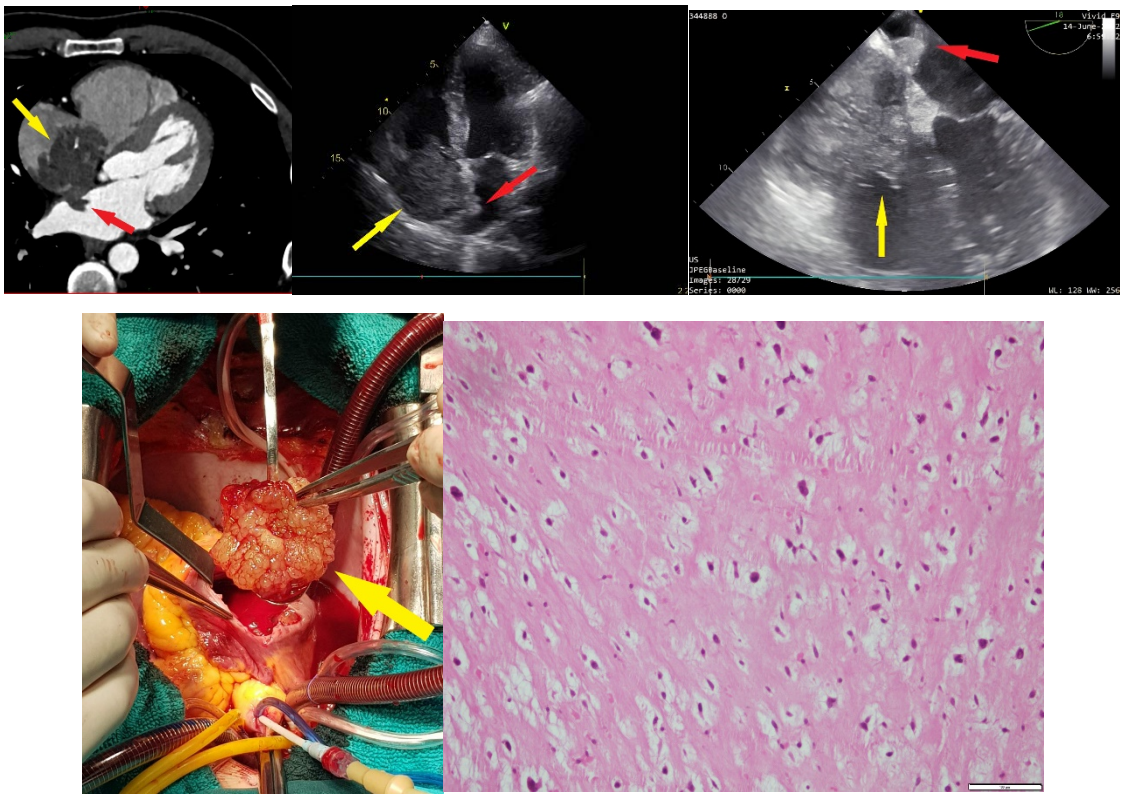

Figure 1. A. Computed tomography: the tumor located mainly in the right atrium (the yellow arrow) but also spreading through the foramen ovale into the left atrium (the red arrow). **B.** Transthoracic echocardiography, apical 4-chamber view: the tumor almost completely fills the right atrium (the yellow arrow), while part of the tumor passes the interatrial septum and

expands to the left atrium (the red arrow). **C.** Transesophageal echocardiography, 4-chamber view: the tumor partially passes through the tricuspid valve and partially fills the right ventricle with every heart cycle (the yellow arrow); part of the tumor is located in the left atrium (the red arrow). **D.** Intraoperative view of the tumor: papillary surface with focal signs of hemorrhage, the tumor was completely excised (the yellow arrow). **E.** Microscopic analysis: typical myxoma with polygonal cells with hyperchromatic nuclei and abundant myxoid stroma (*H&E, 20x*