A very rare tumour found incidentally

Myxoma of the pulmonary valve

Olivier Roux[a], Francine Tinguely[c], Jean-Luc Barras[b], René Prêtre[b], Jean-Jacques Goy[a]

[a] Division of Cardiology, University and Hospital, Fribourg, Switzerland; [b] University Hospital CHUV, Lausanne, Switzerland; [c] Clinique Cecil, Lausanne, Switzerland

An 16-year-old male patient with a family history of hypertrophic obstructive cardiomyopathy was referred for screening echocardiography. He was asymptomatic with no medical history, took no medication and exercised regularly by playing football. Clinical status and 12-lead ECG were entirely normal. Echocaradiography showed a normal left ventricle anatomy with normal function. On transthoracic echocardiography, an 8 × 10 mm mass located in the right ventricular infundibulum, without haemodynamic obstruction, was incidentally found (fig. 1A,B). The differential diagnosis was fibroelastoma, organised thrombus, lipoma, rhabdomyoma, fibroma, or myxoma. Echocardiographic findings were confirmed on a computed tomography scan (fig. 1C,D). The mass had the same density as the septal muscle. The patient underwent surgical removal, which confirmed the presence of the mass partially attached to the pulmonary valve (fig. 1E,F). Pathophysiological analysis revealed a cardiac myxoma with a typical histopathological appearance: this lesion was composed of uniform spindle- and stellate-shaped cells with abundant eosinophilic cytoplasm, indistinct cell borders, oval and small nuclei with open chromatin. The cells were dispersed in a

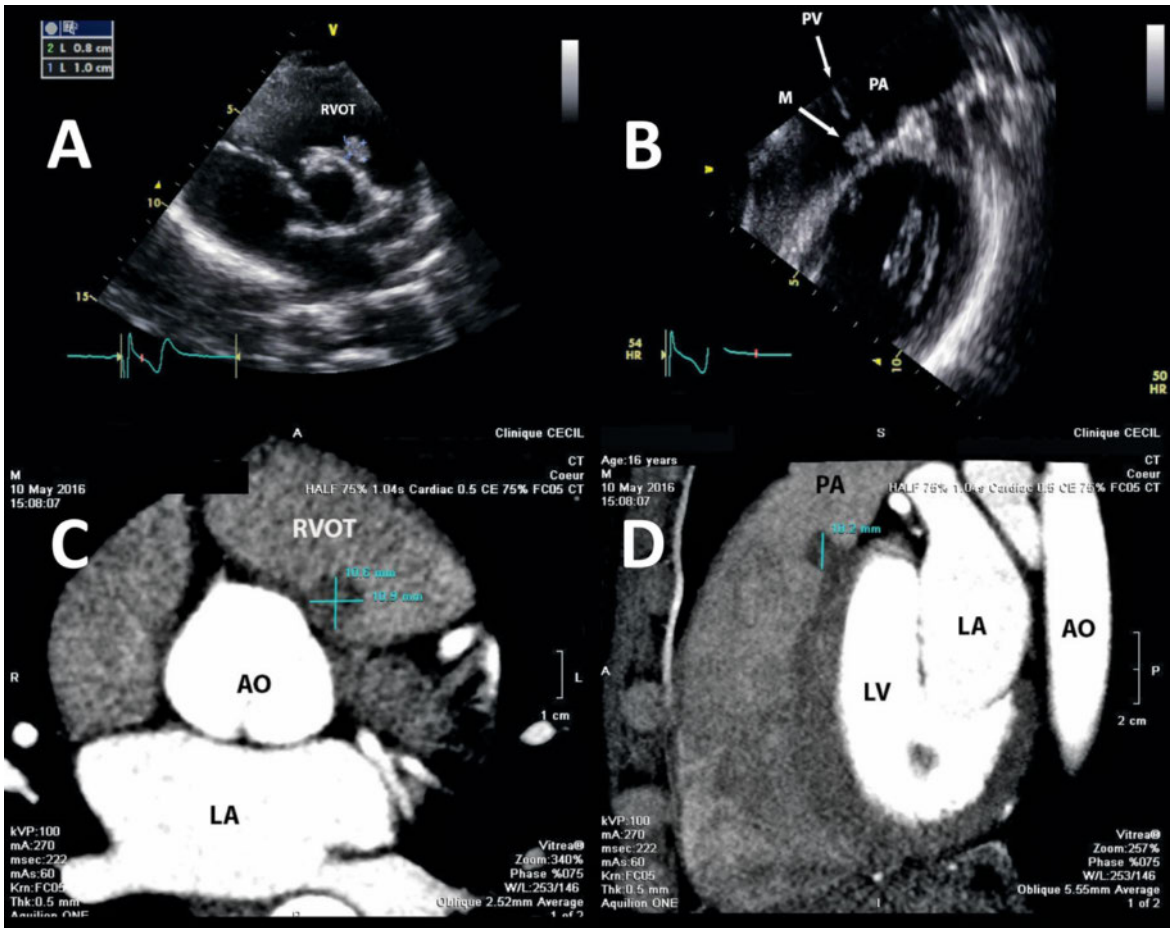

Figure 1: The mass with different imaging methods and views : by transthoracic echocardiography (fig. 1A,B), by CT scan transverse view (fig. 1C) and sagittal view (fig. 1D), surgical view of the mass, partially attached to the PV in the RVOT (fig. 1E), the surgical specimen (fig. 1F), and histopathology of the mass (fig. 1G, H, J). AO = aorta; LA = left atrium; LV = left ventricle; M = mass; PA = pulmonary artery; PV = pulmonary valve; RVOT = right ventricle outflow tract

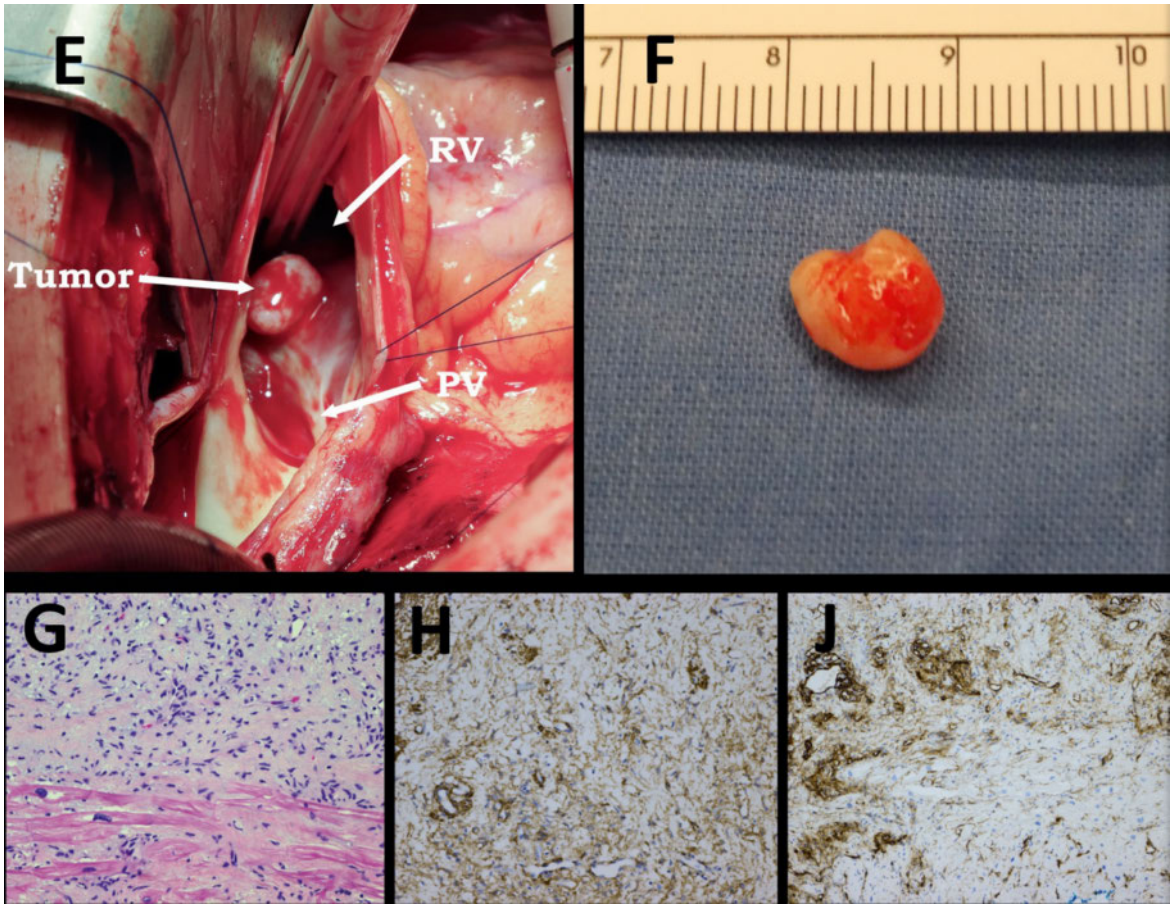

Figure 1 (continued).

relatively myxoid stroma in which sparse capillary-sized blood vessels were seen. The margin was not well-defined and invaded the non-atrophic cardiomyocytes on which it lay (fig. 1G). The tumour cells were diffusely positive for SMA (smooth muscle actin – fig. 1H), and for CD34 (fig. 1J). The outcome was uneventful and transthoracic echocardiography at day 30 and year 1 was normal.

This is an extremely rare case of a myxoma of the right-sided cavities, especially with involvement of the pulmonary valve and right ventricular outflow tract.

Correspondence:
Prof. MD Jean-Jacques Goy
Service de cardiologie
Hôpital cantonal
Rue des Pensionnats 5-7
CH-1700 Fribourg
jjgoy[at]goyman.com

Disclosure statement
No financial support and no other potential conflict of interest relevant to this article was reported.

References

1 Gribaa R, Slim M, Kortas C, Kacem S, Ben Salem H, Ouali S, et al. Right ventricular myxoma obstructing the right ventricular outflow tract: a case report. J Med Case Rep. 2014;8:435.
2 Rao PA, Nagendra Prakash SN, Vasudev S, Girish M, Srinivas A, Guru Prasad HP, et al. A rare case of right ventricular myxoma causing recurrent stroke. Indian Heart J. 2016;68:97–101.