A 47-year-old female with multifocal fibroelastoma and coronary artery disease

Authors: Artur Pawlik, Rafał Januszek, Renata Rajtar-Salwa, Dariusz Dudek, Stanisław Bartuś

Article type: Clinical vignette

Received: May 31, 2019.

Accepted: July 25, 2019.

Published online: July 29, 2019.

ISSN: 0022-9032

e-ISSN: 1897-4279

This is an Open Access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives 4.0 International License (CC BY-NC-ND 4.0), allowing third parties to download articles and share them with others, provided the original work is properly cited, not changed in any way, distributed under the same license, and used for noncommercial purposes only. For commercial use, please contact the journal office at kardiologiapolska@ptkardio.pl.
A 47-year-old female with multifocal fibroelastoma and coronary artery disease.

Artur Pawlik¹, Rafał Januszek¹, Renata Rajtar-Salwa¹, Dariusz Dudek², Stanisław Bartuś²

¹2nd Department of Cardiology and Cardiovascular Interventions, University Hospital, Kraków, Poland
²Department of Interventional Cardiology, Jagiellonian University Medical College, Kraków, Poland

Not always PCI for single-vessel disease.

Corresponding author:
Artur Pawlik, M.D.
2nd Department of Cardiology and Cardiovascular Interventions
University Hospital in Kraków
ul. Kopernika 17, 31-501 Kraków, Poland
arturo.pawlik@gmail.com
Phone: +48 12 424 71 70; Fax:+48 12 424 71 80;
Conflict of interest: none declared.
A 47-year-old female was admitted to our department for evaluation of chest pain. Symptoms often occurred at rest and were not related to physical exercise or high blood pressure. Medical history revealed recently diagnosed hypertension, hyperlipidemia, hypothyroidism, smoking history and radiation therapy for Hodgkin lymphoma in childhood. Transthoracic echocardiography and physical examination were unremarkable. Computed tomography of the coronary arteries was performed and demonstrated significant narrowing in the ostial segment of right coronary artery (RCA). The patient was qualified for percutaneous coronary angiography which had confirmed significant stenosis in proximal RCA [Figure 1 A]. Multiple attempts of crossing the stenosis with several types of guidewires and angioplasty were ineffective. Afterwards, computed tomography (CT) was reassessed and two round myxomatosis masses were confirmed in left atrium [Figure 1 C]. Moreover, a small nodule on the ventricular side of aortic valve leaflet was visualized. Transoesophageal echocardiography confirmed the presence of aforementioned masses [Figure 1 B]. The patient was qualified by heart team consultation to surgical procedure including revascularization of RCA and excision of three masses. During the procedure, three frond-like papillary structurers from the free wall of the left atrium were successfully removed and aortocoronary venous bypass was inserted. Based on histopathological examination of the resected specimen, a clinical diagnosis of the papillary fibroelastoma (PFE) was made. The 12-month follow-up was negative for relapse.

**Discussion**

With the advances of imaging techniques, detection of primary cardiac tumors has significantly increased with an estimated rate of approximately 0.02% of the general population [1]. Among them, PFE is the third most common type. Usually, it arises from the valvular endocardium as a solitary lesion. Multifocal, atrial appearance is less frequent [2].
Despite the benign nature of PFE, its fragile structure may pose life threat given its propensity for embolization. Other clinical manifestations described in the literature include heart failure, acute coronary syndromes and arrhythmias. Therefore, it is generally accepted that even in asymptomatic cases, surgical excision should be promoted, especially if myxomatous etiology is suspected [3]. For that reason, precise analysis of imaging studies such as CT is crucial in the diagnostic process and may help omit unnecessary percutaneous coronary intervention (PCI) followed by application of two antiplatelet agents increasing bleeding risk and postponing surgical management.

Important notice in the presented case concerns angiographic anatomy in the RCA which is unfavorable for PCI and typical for patients who have been irradiated [4]. This type of ostial lesions could be linked to serious procedural complications such as dissection, including aortic root or occlusion of the artery, making the attempt of PCI dangerous and, in view of the coexistence of cardiac tumor, unnecessary. On the other hand, if the patient’s surgical risk is too high, PCI and long-term anticoagulation should be considered.

In conclusion, we would like to emphasize the importance of proper and detailed pre-procedural assessment of a patient. It is essential to avoid serious complications of unnecessary procedures and to perform the cardiac surgery at the right time with no risk linked to seizing dual platelet therapy after stenting the coronary artery.

References:


Figure 1.

A - initial coronary angiogram of the right coronary artery. Significant stenosis in the proximal part of the vessel (black arrow).

B – transthoracic echocardiogram shows a solid mass in the right atrium (white arrow).
C – angio-tomography of the heart. Multiple masses are visible in left atrium (white arrows).