intermittent pain behind the chest bone and three vessel coronary artery disease verified by coronary angiography. Transthoracic and transoesophageal echocardiography and computed tomography (MDCT) were performed. Electrocardiogram and physical examination were normal. Chest X-ray suggested a discrete pronounced shadow in the projection of the left hilus. Transthoracic two-dimensional echocardiography showed that the left and right heart chambers are within normal size and function, and also showed competent valves and turbulent colour flow Doppler at the level of the pulmonary valve without high pressure gradient or pulmonary regurgitation with vague contours of the wall of the PA.

Transoesophageal echocardiography showed that the main trunk of the PA was dilated up to 4.7 cm. Dimension of the right branch was 2.1 cm and it was very difficult to visualize the wall of the left branch, which was 5.3 cm in aneurysmatic form. MDCT showed that the main trunk of PA was 4.6 cm, the right branch PA measured 2.35 cm and the left branch PA measured 5.26 cm (Fig. 1).

Preoperative coronary angiography revealed stenosis of the left main coronary artery up to 40% subocclusion of the left anterior descending coronary artery and right coronary artery. Inflammatory, infectious aetiologies and collagen vascular disease were excluded by laboratory tests. There were no history data for arthritis or obvious lesions of Behcet’s disease.

The treatment of choice for this aneurysm of the PA is published below.

Conflict of interest: none declared.

REFERENCES


Treatement solution by Tomic et al.

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Pulmonary artery aneurysm (PAA) is mostly encountered in the main trunk of pulmonary artery. Aneurysm of the left branch of the pulmonary artery is more common than that of the right branch. Some patients with PAA become symptomat-ic and are subjected to correction, while others are discovered incidentally. Large aneurysms become symptomatic due to the phenomenon of local compression. According to the reports, idiopathic PAA can be stable for several decades. When the patient is asymptomatic and shows no causes of structural abnormalities of the heart and pulmonary hypertension, the conservative treatment is recommended [1–3]. In the case of obvious dysfunction of the right ventricle or increased pressure in the pulmonary artery, surgery is recommended [2]. PAA is defined by a diameter of the pulmonary artery greater than 4 cm [4]. It is unclear what size PAA (similar to aortic aneurysm) is likely to indicate an increased risk of complications. Some authors suggest that the increase of idiopathic PAA of >6 cm in those who are symptomatic, particularly in patients with right ventricular dysfunction or increased pressure in the pulmonary artery [2,4], should be surgically corrected.

In this case [5], coronary artery bypass grafting (CABG), with arterial graft to the left anterior descending coronary artery and veins grafts to marginal and right coronary artery, was performed. The patient presented herein was asymptomatic due to PAA and without symptoms of stenocardia after CABG. Transthoracic and transoesophageal echocardiography monitoring showed no change of the right ventricle, pulmonary valve insufficiency together with increasing PAA diameter or development of clinical symptoms in the next 3 years.

Conflict of interest: none declared.

References


Treatment solution by Aparci and Uz

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We have read the article by Tomic et al. with great interest [1]. Authors presented a case of idiopathic asymptomatic pulmonary artery aneurysm with associated coronary artery disease. Idiopathic pulmonary artery aneurysm (PAA) may present with non-specific signs and symptoms such as exertional dyspnoea, chest pain, and cough which are mainly due to compression and mass effect; unless it is complicated with rupture or dissection [2]. Presence of these signs and symptoms may indicate the surgical treatment of pulmonary artery aneurysm, especially for giant aneurysms up to 60 mm in size [3]. Additionally, pericardial effusion may be one unusual complication of idiopathic PAA. It is probably due to interruption of cardiac lymphatic drainage by the enlargement of pulmonary artery base. If it is asymptomatic and detected incidentally, it may be followed up conservatively [4]. Otherwise, if it is due to the dissec-tion of PAA, it must be treated immediately. Either elective or immediate surgical treatment of pulmonary artery by using Dacron grafts results in better clinical outcomes unless the patient’s right and left ventricular functions have deteriorated [5]. The most interesting point of this case is coexistence of three-vessel coronary artery disease with the involvement of the left main coronary artery and the idiopathic PAA. Surgical revascularization is indicated in this case. Surgical treatment of PAA simultaneously with the coronary bypass grafting may be the best curative option in this case. Since the right and left ventricular functions and dimensions were within normal limits yet and the probability of post-operative complications were very low. If severe coronary artery disease or chest pain did not coexist, patient might have been followed up conservatively. Transthoracic echocardiography is the method of choice in the management of idiopathic PAA. It may easily be diagnosed by routine or screening transthoracic echocardiography examination and followed up by serial echocardiography even from an early age. In conclusion, idiopathic PAA may be asymptomatic and detected incidentally unless it is presented with the signs and symptoms of compression or rupture. The decision regarding clinical follow-up or surgical treatment of idiopathic PAA mainly depends on the severity of the signs and symptoms or the presence of severe comorbidity, as in this case. Surgical treatment of idiopathic PAA will be clinically satisfactory if the left and right ventricular functions are normal.

Conflict of interest: none declared.
References


