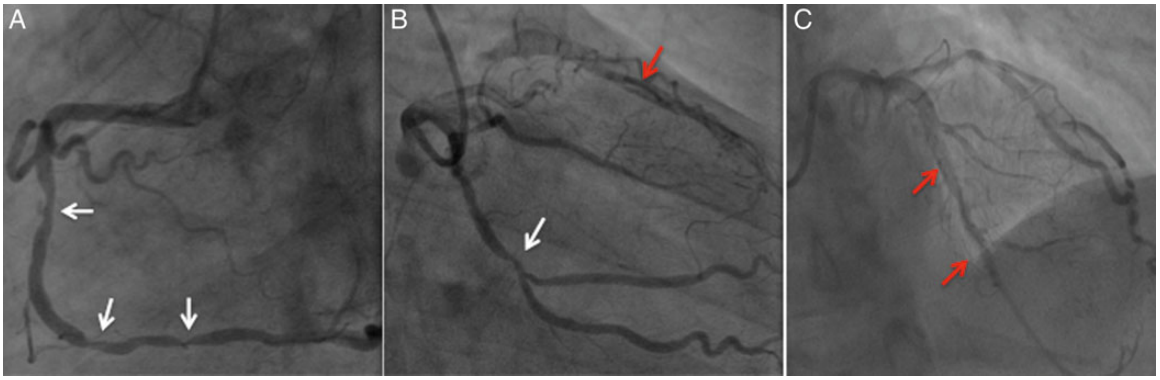

Figure 1: Coronary angiography showing stenosis of the right coronary artery (**A**) and the second marginal branch of the left circumflex artery (**B**, white arrow). The left anterior descending artery appears to have a chronic total occlusion with collateral filling (**B** and **C**, red arrows).

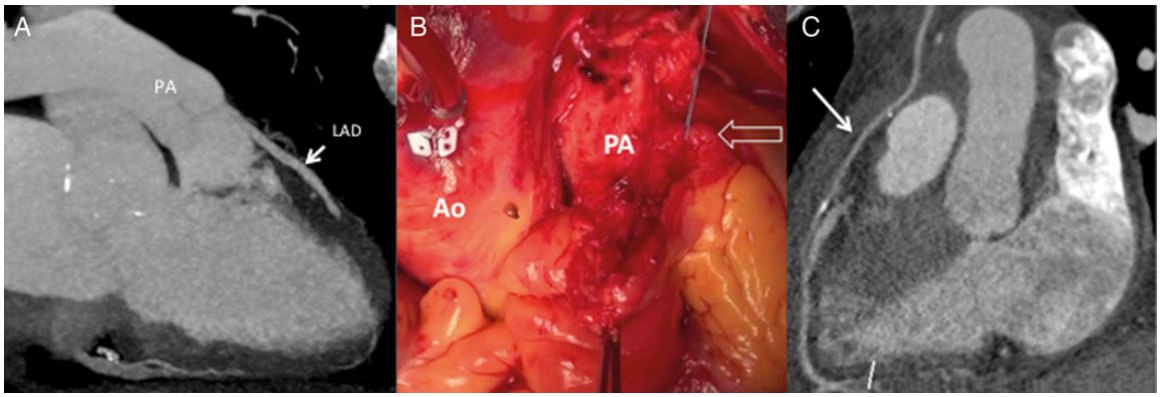

Figure 2: (**A**) Computed coronary tomography (CT) showing an anomalous isolated origin of the left anterior descending artery from the pulmonary artery. (**B**) Intraoperative findings confirmed the origin of left anterior descending artery from pulmonary artery (white arrow). The aorta is cannulated. (**C**) After surgery, cardiac CT showed graft patency (white arrow). Ao: aorta; LAD: left anterior descending; PA: pulmonary artery.

ischaemia leading to ventricular arrhythmia, syncope, dyspnoea, angina or heart failure [4]. CT angiography can detect the ALADAPA. The usual treatment comprises surgical correction by CABG or rerouting through an aorto-pulmonary window (Takeuchi procedure). Here, CABG was required because of the combination of atherosclerotic stenosis and ALADAPA. The long-term outcome after revascularization is excellent [5].

We report an original case of coronary artery disease revealed by silent myocardial ischaemia resulting from an association of ALADAPA and atherosclerosis, with a late manifestation (patient aged over 60 years) and treated by CABG. To date, at the 1-year follow-up, the patient remains asymptomatic without residual myocardial ischaemia.

Conflict of interest: none declared.

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eComment. Combined surgical strategies for anomalous connection of coronary artery to pulmonary artery in adults

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We read with great interest the article by Gurbuz *et al.* [1]. We congratulate them on their successful effort in the surgical treatment of such a rare case, presenting with both carotid artery stenosis and coronary artery disease accompanied by an anomalous origin of the left coronary artery from pulmonary artery (ALCAPA). In fact, the traditionally-named ALCAPA leads to a left-to-right shunting into pulmonary arteries, resulting in ventricular ischaemia [2]. Although the terminology defines an origin of left anterior descending artery (LAD) from pulmonary artery, the actual flow direction of the blood is from the coronary circulation to main pulmonary artery. This reversed coronary flow leads to a coronary steal phenomenon. In general, in such cases, re-establishment of a dual coronary circulation is the preferred treatment modality [2].

However, we would like to discuss some points about the surgical treatment strategy for the case presented by Gurbuz and colleagues. Coronary artery bypass grafting (CABG) for the revascularization of LAD with the left internal thoracic artery (LITA) will provide the antegrade flow to the distal segment of LAD; however the proximal part will still have the reversed flow pattern. The coronary steal phenomenon will possibly affect the septal or diagonal branches originating proximally to the lesion at the LAD. We would prefer the addition of a pulmonary arteriotomy to the CABG procedure in this case, in order to close the origin of the LAD simply with a pericardial patch, as reported by Tseng and colleagues [3]. In our opinion, this surgical strategy will provide both anatomical and physiological correction of the underlying pathology with prevention of the reversed flow from LAD to pulmonary artery as well as the distal perfusion by means of LITA-LAD anastomosis.

In conclusion, in such congenital abnormalities related to the origin of the coronary arteries, the surgical strategy might be determined depending on both the anatomical and physiological effects of the disease.

Conflict of interest: none declared.

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