

An elderly patient with atresia of the left main stem

To the Editor,

We deeply appreciate Topuz et al.^[1] for their study entitled 'An elderly patient with atresia of the main stem' published in the May 2015 issue of Archives of the Turkish Society of Cardiology. The study mentions atresia of the left main coronary artery (LMCA) as a rare congenital coronary anomaly with poor clinical outcomes. Fewer than 50 cases have been reported in the literature.^[2] It can be fatal and can present with severe heart failure during infancy, or only as left ventricular dysfunction and mitral incompetence.

In the Topuz et al. study, considering the patient's clinical data, age, ECG findings (LBBB) and images, there is the impression of LCMA occlusion rather than LCMA atresia. In the right coronary angiography, the impression is that the circumflex (Cx) and left anterior descending (LAD) artery are filling from the right coronary artery (RCA) by proximal and distal collaterals. Also in the scintigraphy images, an anterior and posterolateral reversible defect (ischemia) is being considered as steal of coronary flow from the

RCA due to collateral formation.

As a result, in this aged patient, it is not altogether clear whether it is atresia or collateral formation developing after occlusion, which developed over ischemia. In our opinion, this case should be evaluated and reported from this point of view.

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Authors' reply

We thank our readers for their interest in our work and the valuable comments. We reported the diagnosis of a case of left main coronary artery (LMCA) atresia during evaluation for noncardiac surgery.^[1]

In our case, we suggested that the best explanation for our angiographic and cardiac CT findings was association with LMCA atresia. LMCA atresia ranges across a broad age and clinical spectrum. It is not only a newborn or childhood disorder, but is also found in the elderly population, as was the case with our patient.^[2] In this case, the remaining coronary arteries were normal. As reported, we evaluated the patient's coronary anatomy using multislice computed tomography (CT) in addition to coronary angiography. In multislice CT, there was no calcification, or obstructive or non-obstructive atherosclerotic plaques in the coronary arteries. Hence, the patient's agatston calcium score was low, and syntax score was not calculated.

It is important to bear in mind that, although very uncommon, when there is a lack of atherosclerotic disease in coronary arteries, it is usually suggestive of congenital causes for absence of the LMCA. Therefore, we agree that in daily practice another imaging modality to investigate coronary anatomy may also be used in adjunct to coronary angiography, especially if there is suspected congenital disease of the coronary arteries. One cause of absence of the LMCA without atherosclerosis in the remaining coronary arteries is congenital atresia of the LMCA. In LMCA atresia, there is no left coronary ostium and no left main trunk. The left anterior descending artery (LAD) and left circumflex (Cx) arteries are connected proximally, as usual, but end blindly, with their blood supply coming from the right coronary artery (RCA) via one or more collateral arteries. The second cause leading to angiographic absence of the LMCA without atherosclerosis is single (right) coronary artery. In this condition, the RCA is generally responsible for blood flow to perfuse the entire heart, as seen in congenital atresia of the LMCA. In single