A very rare image in cardiology: posterolateral artery myocardial bridge

G. Ertaş, E. Ural, T. Kılıç

Figure 1. The diastolic (A) and systolic (B) images show complete systolic compression of PLA on coronary angiography.

Muscle overlying of an epicardial coronary artery is termed a myocardial bridge. The frequency of myocardial bridging reported in angiographic studies varies from 0.5 to 16%.¹ Myocardial bridging is usually confined to the left anterior descending coronary artery. A myocardial bridge of the branches of the right coronary artery is very rare.

We present an image of 75-year-old man who was admitted with a typical angina pectoris. The coronary angiography showed systolic compression of the

posterolateral artery (PLA) which narrows completely during systole (figure 1). As it is a very rare type of myocardial bridge, we performed a 64-slice multi-detector computed tomographic (MDCT) coronary angiography in order to rule out other possible reasons and/or confirm the diagnosis. MDCT confirmed the presence of a myocardial bridge of the PLA (figure 2). The patient was successfully treated with a β -blocker.

Myocardial bridging is usually an innocent pathology. However, myocardial infarction, left ventricular dysfunction, paroxysmal atrioventricular block, as well as exercise-induced ventricular tachycardia and sudden cardiac death have been reported to be related to a myocardial bridge.² Beta-blockers are the suggested medical treatment. They prolong the diastolic time and decrease the contraction force above the coronary artery.³ Intracoronary stents and surgery have been attempted in patients refractory to medication.^{4,5}

Myocardial bridging and the intramural course of an artery do not always mean the same. Myocardial bridge refers to a segment of a major epicardial

G. Ertaş
E. Ural
T. Kılıç

Interventional Cardiology Research and Application Unit,
Medical Faculty, Kocaeli University, Izmit / Kocaeli, Turkey

Correspondence to: G. Ertaş
Interventional Cardiology Research and Application Unit,
Medical Faculty, Kocaeli University, Umuttepe Central Campus,
Eski Istanbul Yolu 10 km, 41380, Izmit / Kocaeli, Turkey
E-mail: drgokhanertas@yahoo.com.tr

Figure 2. Myocardial bridge of PLA is seen on multidetector computed tomographic coronary angiography.

coronary artery that runs intramurally through the myocardium (tunnelled artery) and compresses the artery during systole, whereas the term intramural course is used when the artery runs partially in the muscle, frequently without compression. Dynamic imaging such as coronary angiography is needed to distinguish those two phenomena. ■

In this section a remarkable 'image' is presented and a short comment is given.

We invite you to send in images (in triplicate) with a short comment (one page at the most) to Bohn Stafleu van Loghum, PO Box 246, 3990 GA Houten, e-mail: l.meester@bsl.nl.

'Moving images' are also welcomed and (after acceptance) will be published as a Web Site Feature and shown on our website: www.cardiologie.nl

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