

## Malignant anomalous origin of the left main coronary artery

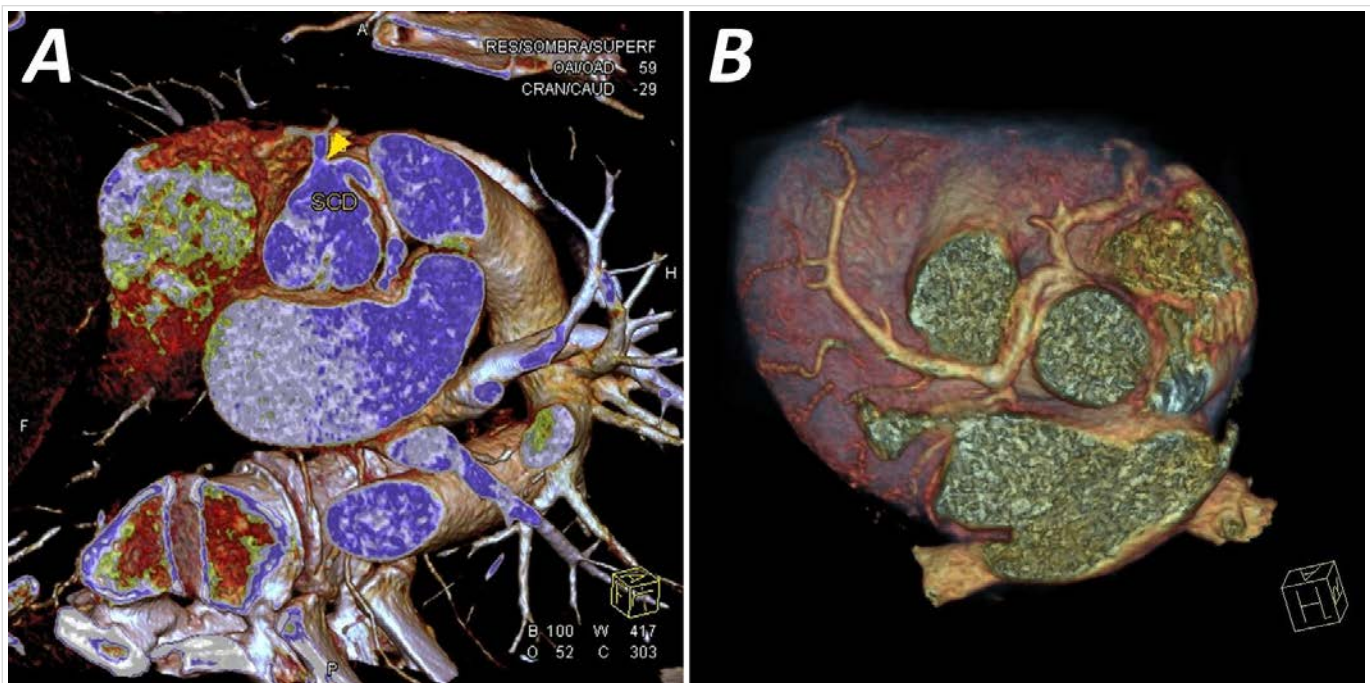
### *Origen anómalo maligno del tronco coronario izquierdo*

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*Full English text of this article is also available*


**Key words:** Left main coronary artery, Anomalous origin, Multidetector Computed Tomography  
**Palabras Clave:** Tronco coronario izquierdo, Origen anómalo, Tomografía Computarizada Multidetector



**Figure 1**

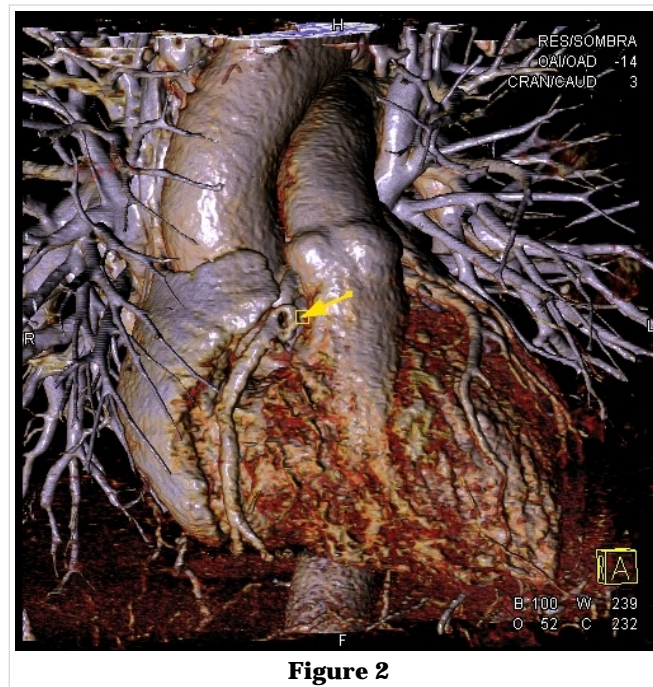
Anomalous origins of coronary arteries are rare and they usually represent findings in tomographic studies or conventional coronary angiographies. Some of

them may be associated with severe arrhythmias and sudden death, and many of these alterations used to be demonstrated in autopsies of patients with sudden death on exertion. The anomalous origin of the left main coronary artery from the right coronary sinus has been described to be the most frequent and malignant one due to its interarterial course, because it causes extrinsic compression of the coronary vessel between the trunk of the pulmo-

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nary artery and the aortic root. The arrhythmogenic myocardial substrate and the ischemia that this produces can lead to sudden death in only one event. The development of tomographic techniques in the imaging acquisition, and its post-processing, has made it possible to diagnose coronary diseases and anatomical variants of their origins and anomalous trajectories courses.

Tomographic images of a 55-year-old patient suffering from chest pain on exertion and tachycardia are presented. The electrocardiogram showed a left bundle branch block, and no associated risk factors were confirmed. In **figure 1A** is shown the origin of the left main coronary artery from the right coronary sinus (arrow) in oblique volumetric reconstructions, by the dual-source tomographic technique (Somaton Definition, Siemens, Germany). Its interarterial course is observed (**Figure 2**), which decreases the distal flow from the left anterior descending artery. In addition, there is a lesion in the proximal segment of the right coronary artery (**Figure 1B**) with a double lumen appearance, which may correspond to a spontaneous dissection (arrow), without compromising the distal flow.



**Figure 2**