

Woven Right Coronary Artery

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Woven coronary artery is an extremely rare and not clearly defined congenital malformation. In this anomaly, epicardial coronary artery is divided into multiple thin channels. These multiple channels join again into a normal duct. We describe a case of woven coronary artery anomaly in the right coronary artery.

Case Report

A 62 year old man with exertional chest pain was admitted to our hospital. The patient had two cardiac risk factors included diabetes, smoking. His complaints were angina and shortness of breath with exertion existing for three months. The resting 12-lead

electrocardiography was within normal limits. Transthoracic echocardiography showed normal left ventricular wall motion. In light of those finding, coronary angiography was planned to the patient. Coronary angiography performed via the right femoral artery with a Judkins' technique demonstrated a woven coronary artery anomaly in the right coronary artery (Figure 1). In the proximal segment of the right coronary artery, arterial lumen was divided into multiple thin channels, these channels traversed distally with a slightly twisting course along a 2 cm length of segment (Figure 2). There was a TIMI-III blood flow at the distal segment.

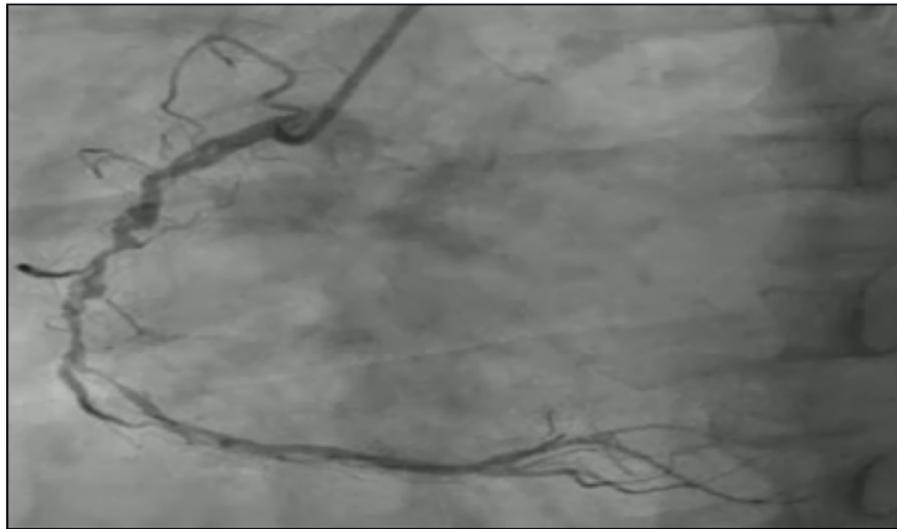


Figure 1: A woven coronary artery anomaly in the right coronary artery.

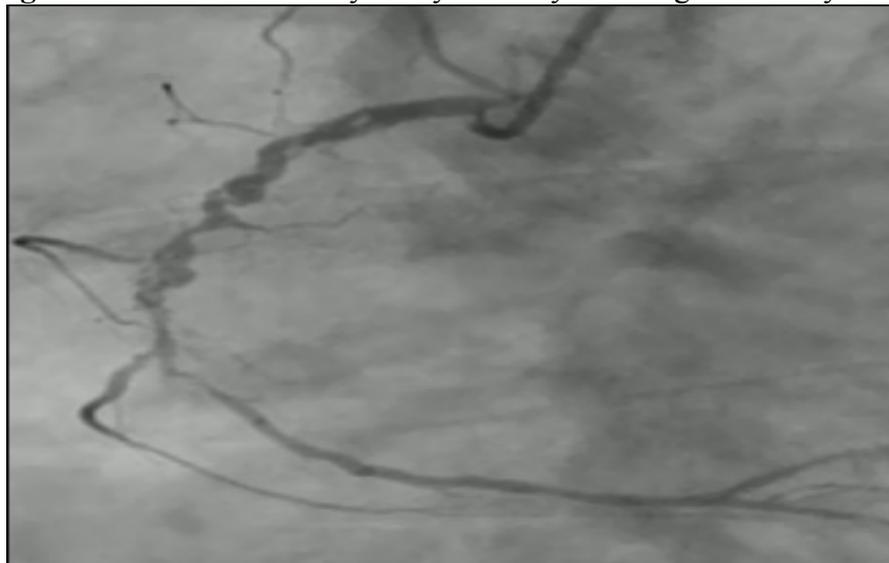


Figure 2: In the proximal segment of the right coronary artery, arterial lumen was divided into multiple thin channels, these channels traversed distally with a slightly twisting course along a 2 cm length of segment.

Discussion

Woven coronary artery is an extremely rare coronary malformation and it was first described by Sane et al (1) in 1988. Woven coronary artery can be defined as a coronary segment showing the twisting course of multiple thin channels along the vessel in any coronary artery with a TIMI-III blood flow distally.

Though woven coronary artery can be found mostly in the right coronary artery, it can be also occur in left coronary system. It can be difficult to recognize this anomaly. This anomaly is usually mistaken for intracoronary thrombus or spontaneous coronary artery dissection. Some authors believed that woven coronary artery may be developed from spontaneous dissection

(2). Until now, aetiology of woven coronary artery was not fully explained (2).

Woven coronary artery can be accepted as a benign condition. Usually a woven coronary artery does not disturb coronary blood flow. In the case reported by Kursaklioglu et al. (3), adverse coronary event didn't occurred during the 5 year follow up period.

Woven coronary artery anomaly can be misdiagnosed by clinicians so all clinicians performing angiography have to be very careful in interpreting angiograms especially for malformation and anomalies. Although this anomaly appears to be a benign coronary anomaly without any major adverse cardiovascular events like in our case, we need more data to understand

precisely the pathophysiology of this malformation.

References

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