Acute coronary syndrome due to suspected fibromuscular dysplasia – a case report

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Introduction: Fibromuscular dysplasia (FMD) of coronary arteries is a rare disorder that can present as an acute coronary syndrome, left ventricular failure or even sudden cardiac death. The most common manifestation of FMD is spontaneous coronary dissection (SCAD) with intramural hematoma. Percutaneous coronary intervention (PCI) for SCAD carries a significant risk of adverse outcomes due to dissection propagation.¹⁻³

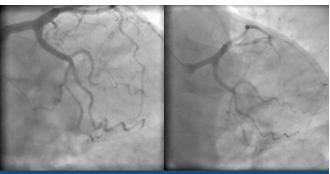


FIGURE 1. Comparison of coronary angiography findings showing stenosis of the distal first obtuse marginal artery (left) and normal findings (right).

Case report: We present a 58-year-old woman, who was hospitalized in the Department of Cardiovascular diseases due to chest pain and high troponin values. The ECG was normal and after taking a fast-acting nitrate, the symptoms subsided. Coronary angiography showed normal epicardial arteries and the diagnosis of MINOCA (myocardial infarction with non-obstructive coronary arteries) was established. Echocardiography revealed a normal systolic function with mild hypocontractility of the inferior and inferolateral wall. The patient was discharged without antiplatelet therapy due to aspirin allergy. She was re-hospitalized for the same symptoms seven months later. A repeated coronary angiography revealed a severe stenosis of the distal first obtuse marginal artery (Figure 1) and SCAD was suspected. Therefore, coronary angiography of the initial hospitalization was revised and a significant stenosis of first diagonal artery (D1), which was overlooked during the initial coronary angiography, was found (Figure 2). Since the D1 was now completely normal, the diagno-

sis of possible fibromuscular dysplasia was made. She was treated conservatively and was discharged with clopidogrel and statin therapy.

Conclusion: 58-year-old female was hospitalized twice due to an acute coronary syndrome because of suspected FMD. Although the etiology is poorly known, attempts are still being made to clarify FMD's genetic and molecular underpinnings. Since PCI has worse outcomes, a conservative therapy is typically preferred because lesions heal on their own.

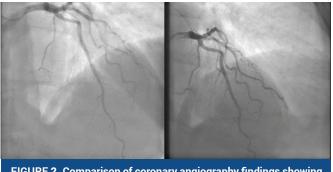


FIGURE 2. Comparison of coronary angiography findings showing stenosis of the first diagonal artery (left) and normal findings (right).

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