European Position Paper on Spontaneous Coronary Artery Dissection

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The following are key points to remember from this European Position Paper about spontaneous coronary artery dissection (SCAD):

1. SCAD is a frequent (23-36%) cause of acute myocardial infarction in young- to middle-aged women, and only a minority of these cases occur in the setting of pregnancy.
2. The diagnosis of SCAD should be actively considered when autopsy is performed for sudden cardiac death. Consider evaluating the entire coronary tree and peripheral arterial system for fibromuscular dysplasia (FMD). Co-existent atherosclerotic disease is uncommon.
3. While the pathophysiology remains unknown, SCAD appears strongly associated with female sex hormones and extracoronary arteriopathies including FMD, but does not appear to be strongly inherited.
4. Patients with SCAD present with acute coronary syndrome, but there is often a delay in diagnosis.
5. This study group recommends diagnosis by coronary angiography since the sensitivity and specificity of computed tomography coronary angiography are not known. There are different angiographic patterns of SCAD (Type 1, 2A, 2B, 3, and 4), and multivessel involvement is common.
6. If needed, intravascular ultrasound (IVUS) and optical coherence tomography (OCT) can be useful for diagnosis or characterization of the false lumen; however, this needs to be performed with care because of the increased risk of iatrogenic dissection in patients with SCAD. OCT provides better spatial

resolution, but requires pressurized contrast injection, which can potentially cause extension of the dissection.

7. Conservative management is recommended if the patient is hemodynamically stable and has distal flow in the culprit coronary artery without evidence of ongoing ischemia. A period of inpatient observation should be considered. Most SCAD will stabilize and heal over a few months if managed conservatively.
8. There are limited data on the risk of pregnancy in women with a history of SCAD. These patients should be counseled and managed by a multidisciplinary team.
9. Assessment of extracoronary arteriopathies is recommended.
10. Recurrent chest pain and readmission is common. Electrocardiography and high-sensitivity troponin are recommended, but invasive angiography is recommended only with hard evidence of myocardial ischemia.
11. Recurrent chest pain may improve with vasodilator therapy that reduces vasospasm. Cyclical symptoms may improve with low-dose progesterone contraception.
12. Ongoing collaborative research efforts are needed, such as the EORP (European Observational Research Platform) SCAD study, which will begin recruitment in the summer of 2018.

Clinical Topics: **Acute Coronary Syndromes, Arrhythmias and Clinical EP, Cardiac Surgery, Congenital Heart Disease and Pediatric Cardiology, Invasive Cardiovascular Angiography and Intervention, Noninvasive Imaging, Prevention, Vascular Medicine, SCD/Ventricular Arrhythmias, Cardiac Surgery and Arrhythmias, Cardiac Surgery and CHD and Pediatrics, Congenital Heart Disease, CHD and Pediatrics and Arrhythmias, CHD and Pediatrics and Imaging, CHD and Pediatrics and Interventions, Interventions and ACS, Interventions and Imaging, Interventions and Structural Heart Disease, Interventions and Vascular Medicine, Angiography, Echocardiography/Ultrasound, Nuclear Imaging**

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