Idiopathic spontaneous coronary artery dissection: incidence, diagnosis and treatment

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BACKGROUND: Less is known about characteristics, treatment and follow-up of patients with spontaneous coronary artery dissection (SCAD) without associated pregnancy or underlying atherosclerosis. METHODS: We reviewed 5054 consecutive coronary angiographies for SCAD in patients without atherosclerosis or associated pregnancy and performed follow-up angiography in eligible patients. RESULTS: SCAD were assessed in five patients (mean age 44 +/- 8.7 years). Interestingly, all were premenopausal women. Three had no cardiovascular risk factors, whereas two were previous smokers and one had slightly elevated cholesterol levels. Clinical presentation was acute myocardial infarction in four cases and unstable angina pectoris in one of them. Dissection was localized in the left anterior descending artery (LAD) in three cases and in the first marginal branch of the left circumflex artery in two cases. Three patients were treated conservatively with antithrombotic therapy and beta-blocker, whereas in one patient rescue-PCI with stenting of the ostium of the LAD was performed after failed thrombolysis. The fifth woman with dissected proximal LAD underwent CABG. Follow-up angiographies after 5.9 +/- 4.4 months showed complete angiographic resolution of the dissection in the medically treated patients and a perfect angiographic result of the stented LAD. All patients were free of symptoms after a mean follow-up of 13 +/- 10 months. CONCLUSIONS: Idiopathic SCAD is a rare cause of acute coronary syndrome in premenopausal women. In case of single vessel dissection and normal blood flow of the dissected vessel, medical treatment with aspirin, clopidogrel and beta-blockade leads to complete angiographic resolution within a few months.