ACUTE CORONARY SYNDROME

CRT-100

Management and Long-term Prognosis of Spontaneous Coronary Artery Dissection: Results From A Multicentre Observational Study
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BACKGROUND The optimal management, short and long-term prognosis of patients with spontaneous coronary artery dissection (SCAD) remain still not well defined because of their heterogeneous clinical and angiographic presentation.

METHODS A retrospective and prospective multi-center study was conducted on 134 patients with angiographically confirmed SCAD. Clinical and angiographic characteristics, treatment modalities, in-hospital and long-term outcomes and factors affecting the choice of treatment strategy in this rare clinical setting were evaluated.

RESULTS Mean age was 52 ± 11 years and 81% were female. Multivessel SCAD was found in 13% of patients and 93% were admitted with an acute coronary syndrome. Patients with conservative management (78/134; 58%) had a lower risk profile (table 1) and a better in-hospital course compared to those undergoing revascularization (p < 0.001). By OCT, PE were defined as the presence of intracoronary thrombus attached to the luminal surface with no detectable signs of fibrous cap rupture. Positive remodeling was defined as the presence of intracoronary thrombus attached to the luminal surface with no detectable signs of fibrous cap rupture. Positive remodeling was a remodeling index (lesion/reference EEM [external elastic membrane] area) >1.05.

RESULTS Overall, 26% (31/114) of PE had non-ST elevation myocardial infarction (NSTEMI) and 35% (35/100) had STEMI, respectively (p < 0.0001). PR more often showed positive remodeling with a larger necrotic core area by VH-IVUS (p < 0.0001), however PE showed prominent negative remodeling (58.1%, p < 0.0001). By OCT, PE were fibrotic in 60% (26/43), fibrocalcific in 16% (7/43), lipidic in 23% (10/43), all but five of which was a thick cap fibroatheroma. Overall, 65% of plaque erosions (28 of 43) were located in the proximal 30 mm of a culprit vessel - similar to plaque ruptures (72%, 65 of 90, p = 0.29).

CONCLUSION Modimodality intravascular imaging with OCT and VH-IVUS showed fundamentally different pathoanatomic substrates underlying plaque rupture and erosion.