

5th International Conference on **Clinical & Experimental Cardiology**

April 27-29, 2015 Philadelphia, USA

Acute coronary syndromes in cocaine-abusers is not always vasospasms

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Cocaine abuse has been associated with multiple cardiovascular events including myocardial ischemia and infarction commonly due to coronary vasospasms, thrombo-occlusion and systemic hypertension. Spontaneous non-traumatic coronary artery dissections are rare but well documented occurrence in cocaine-abusers, and only a few cases have been reported in the literature. We present a case of cocaine-induced coronary artery aneurysm (CAA) and spontaneous coronary artery dissection (SCAD) in a post-menopausal woman with a non-ST elevation myocardial infarction.

A 62-year-old African-American female with previous history of coronary artery disease, hypertension, and tobacco-abuse presented with an acute onset of sharp chest pain radiating to the left arm with palpitations. She admitted using “crack” cocaine within hours prior to symptom onset. Electrocardiogram revealed lateral lead T-wave inversions. Troponin was 20.8ng/mL. Immediate coronary angiography under optical coherence tomography (OCT) guidance revealed 99% mid-segment dissection of the first obtuse marginal branch by presence of a double-lumen with superimposed thrombi. After balloon angioplasty and stent placement, the OCT confirmed disappearance of the double-lumen. The proximal right coronary artery had an aneurysm with intraluminal filling defect with normal distal blood flow and no significant obstructive disease, therefore no interventions were undertaken.

The use of cocaine preceding the SCAD leads to a likely association between the two events. Prior studies have found increased prevalence of CAA, and association of SCAD as a potential rare complication of cocaine abuse. The proposed mechanism of injury appears to be multi-factorial predominantly related to cocaine’s adrenergic properties. Cocaine-associated acute coronary syndromes should not be overlooked as transient vasospasms and that immediate coronary angiography may be needed instead of medical management to evaluate for life-threatening complications such as CAA and SCAD. This case illustrates the successful management of cocaine-induced SCAD with immediate PCI under OCT guidance.

Biography

Hiren Patel has completed his MD at the age 25 from Avalon University School of Medicine and is currently a PGY-2 Internal Medicine resident at Baton Rouge General, an affiliate of Tulane University School of Medicine, in Baton Rouge, Louisiana. He has an interest to pursue a cardiology fellowship post-residency.

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