ACC.12
61st Annual Scientific Session & Expo
ACC-i2 with TCT innovation in intervention

E1485
JACC March 27, 2012
Volume 59, Issue 13

Chronic CAD/Stable Ischemic Heart Disease

THE SLOW CORONARY FLOW PHENOMENON IS NOT A GOOD PREDICTOR OF CORONARY MICROCIRCULATORY DYSFUNCTION AS ASSESSED BY ABSOLUTE CORONARY FLOW RESERVE IN PATIENTS WITH ANGIOGRAPHICALLY NORMAL CORONARY ARTERIES

ACC Moderated Poster Contributions
McCormick Place South, Hall A
Monday, March 26, 2012, 11:00 a.m.-Noon

Session Title: Non-Obstructive CAD: What Are We Missing?
Abstract Category: 2. Chronic CAD/Stable Ischemic Heart Disease: Clinical
Presentation Number: 1200-134

Authors: *Carlo Caiati, Mario Lepera, Daniela Santoro, Stefano Giuseppe Primitivo, Isabella Lacitignola, Delia De Santis, Domenico Vestito, Donato Quagliara, Filippo Masi, Stefano Favale, Bari, Italy*

Background: The meaning of the slow coronary flow phenomenon (SCF) as visualized in patients (pts) with angiographically normal coronary arteries, is controversial. Non-invasively assessed absolute coronary flow reserve (CFR) in the left anterior descending coronary artery (LAD) by transthoracic colour guided pulsed-wave Doppler is a reliable parameter to assess coronary microcirculatory dysfunction (CMD). This study aimed to assess the value of SCF in predicting CMD.

Methods: Seventy-three consecutive pts with angiographically normal coronary arteries underwent both non-invasive assessment of CFR in the LAD and TIMI frame count assessment of coronary contrast runoff.

Results: We found that 13 pts out of 73 (group 1) had SCF and the remaining 60 had normal runoff (group 2). The CFR evaluated in both groups was not significantly different (see graph). CFR was 2.86+ 0.7 (Mean + SD) in group 1, and 2.89 + 0.8 in group 2 (p= ns). In addition, considering a CFR value < 2.5 as an index of coronary microcirculatory dysfunction, we found CMD in 5 pts of group 1 (38%) and in 20 pts of group 2 (33%) (p=ns). The calculated sensitivity and specificity of SCF in predicting CMD was 20% (5/20) and 83% (40/48) respectively (p=ns).

Conclusion: The slow coronary flow phenomenon is not a good predictor of coronary microcirculatory dysfunction as assessed by absolute CFR. It might reflect, however, only a resting microcirculatory abnormality and probably remains a multifactorial phenomenon.