



E1362

JACC March 12, 2013

Volume 61, Issue 10



Prevention

25-OH VITAMIN D LEVELS ARE NOT ASSOCIATED WITH CORONARY ARTERY CALCIUM OR SEVERELY OBSTRUCTIVE CORONARY ARTERY STENOSES

Moderated Poster Contributions

Poster Sessions, Expo North

Saturday, March 09, 2013, 3:45 p.m.-4:30 p.m.

Session Title: Prevention: Cardiovascular Risk Factors

Abstract Category: 24. Prevention: Clinical

Presentation Number: 1146M-10

Authors: *John S. Ho, John J. Cannaday, Carolyn E. Barlow, Dale B. Reinhardt, Wendy A. Wade, Joe R. Ellis, Larry W. Gibbons, Cooper Clinic, Dallas, TX, USA, The Cooper Institute, Dallas, TX, USA*

Background: The association of vitamin D with cardiovascular events is unclear. Positive studies may have been a result of vitamin D's action on risk factors. We thus evaluated the association of vitamin D with atherosclerosis in those with well controlled risk factors.

Methods: Participants underwent coronary artery calcium (CAC) and coronary computed tomographic angiography (CTA). 25-OH vitamin D was also measured. We examined the association between 25-OH vitamin D and CAC scores. We also studied the relation of 25-OH vitamin D with the presence of $\geq 70\%$ stenoses, determined by CTA and invasive angiography.

Results: In this study of 1131 patients (mean BP 126/79 mm Hg, mean LDL 95 mg/dl, 7% current smokers, and 6% diabetics), there were 132 (11.7%) 25-OH vitamin D deficient (< 20 ng/ml) and 295 (26.1%) 25-OH vitamin D insufficient (21 ng/ml-29 ng/ml) cases. There was no association between 25-OH vitamin D and CAC scores. The median (interquartile range) CAC score for 25-OH vitamin D deficient, insufficient, and adequate patients was 451 (80,1083), 338 (52,830), and 450 (100,1062), respectively. No relation was noted between 25-OH vitamin D and the 39 cases of severe stenoses. The frequency of severe stenoses in 25-OH vitamin D deficient, insufficient, and adequate patients was 3.8%, 2.0%, and 4.0%, respectively.

Conclusion: 25-OH vitamin D is not associated with CAC or severe stenoses in those with well controlled cardiovascular risk factors.

Relation of 25-OH Vitamin D with CAC Scores and Severe Coronary Artery Stenoses

	Median Coronary Artery Calcium (CAC) Score (IQR)	% with SevereCAD
25-OH Vitamin D Deficient (< 20 ng/ml)	451 (80,1083)	3.8%
25-OH Vitamin D Insufficient (21-29 ng/ml)	338 (52,830)	2.0%
25-OH Vitamin D Adequate (> 30 ng/ml)	450 (100,1062)	4.0%