Coronary artery calcification is essentially the beginning of bone formation – except it’s happening in the arteries.¹² Sound scary? It is. Calcification is associated with a 3-4 fold increased risk of death from cardiovascular disease.³ And strangely enough, those who have vascular calcification usually have low bone density or even osteoporosis⁴ – hard arteries and weak bones??

Previous studies had tested the effects of cholesterol-lowering drugs (statins) on the progression of arterial calcification, and they were found to be ineffective. These scientists were looking for another solution. Vitamin D deficiency is known to produce a risk of cardiovascular disease, but had not been investigated for effects on arterial calcification. Because of the protective effect of Vitamin D on both bone and cardiovascular tissues, scientists thought that Vitamin D might be a player in this complex interplay between bone precursors and blood vessel walls.

Subjects with no previous heart disease symptoms but a high coronary calcium score (CCS) were included in the study. They supplemented with omega-3 fatty acids and sufficient Vitamin D3 to achieve greater than 50ng/ml serum levels of 25(OH) Vitamin D. The response of these subjects to these therapies varied 18 months later. About half saw a decrease in CCS, and about half
experienced no change or a small increase in CCS. Also about half of the subjects experienced slowed atherosclerotic plaque growth.5

What do these results tell us? It is difficult to interpret these results because of the lack of a control (no treatment) group, but it definitely opens the door to more studies on the role of Vitamin D in coronary artery calcification.

We also don’t know anything about the diets of the subjects of the study. A phytochemical-rich diet plus Vitamin D and omega-3 supplementation could have achieved dramatic improvements in calcium score!

For now, we can now tentatively add coronary calcification to the long list of detrimental consequences of Vitamin D deficiency. Our best protection against these consequences, in addition of course to a high nutrient diet, is a good Vitamin D supplement.

References:


Tags: Cardiovascular Disease, Heart, calcium, omega-3, vitamin D

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Jennifer - December 9, 2009 5:19 PM

I had primary hyperparathyroid disease caused by a parathyroid adenoma that was removed. After the tumor was removed, the effects of long term hypercalcemia were still present as demonstrated by digital pulse wave analysis, my veins/arteries literally were as stiff as an 80 year olds! I have succeeded in mostly reversing this through oral chelation product that has lots of Vit D (5000) and omega 3's in it along with EDTA. It is very exciting to me that the reversal of vessel calcification can by so easily documented and reversed. I of course also try to eat well, but find often that convience sometime infringes on quality of choices. Anyone else have experiences with reveral of vessel disease to share?