Calcium good in bones, bad in hearts

By ACSH Staff — December 5, 2011

There may be tests beyond a blood pressure reading beyond even considering standard risk factors such as LDL and HDL cholesterol that could help assess a patient’s risk of cardiovascular disease, suggests a new study. By measuring the burden of calcium [1] in the coronary arteries, say German researchers, it is possible to distinguish between people who have different cardiovascular risk levels even among those who have similar blood pressure readings.

In this analysis of over 4,000 participants in the study, researchers measured blood pressure as well as coronary artery calcification through an electron-beam CT, both at baseline and after an average follow-up period of seven years. Participants who had higher blood pressure levels also tended to have higher coronary artery calcium scores. But what was most intriguing was that, even among participants who fell in the same blood pressure group, people who had a higher coronary calcium burden showed the greatest risk for cardiovascular illness, including heart attack and stroke.

Based on these findings, published in *Hypertension: Journal of the American Heart Association*, the authors suggest that testing for coronary artery calcification may be a way to stratify different levels of cardiovascular risk more precisely than with blood pressure readings alone. As ACSH’s Dr. Josh Bloom comments, This looks like it’s going to be the way you measure the health of the heart in the future. Maybe at some point, if these findings are confirmed on a large scale, this method could nicely complement current methods as predictors of coronary artery disease. The numbers are very impressive.

There has recently been much debate about whether and when to prescribe antihypertensive drugs to patients who have prehypertension. ACSH’s Dr. Gilbert Ross notes that other recent research [2] has also supported the notion that testing for calcium buildup is a useful way to determine heart risk among patients with prehypertension who show no other signs of cardiovascular risk. But he notes that while this research is very interesting, we still need further information: How predictive is this test? Is it cost-effective? he asks. This should be the subject of more extensive research.

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