Coronary calcification also predicts stroke risk

By ACSH Staff — March 1, 2013

Coronary artery calcification, the buildup of calcium in the coronary arteries, was found to predict the occurrence of stroke, even in individuals with low-to-intermediate cardiovascular risk, according to a new study [1]. The coronary artery calcification score, measured using an electron-beam CT scan, had been shown previously to predict myocardial infarction as well as cardiovascular risk in the general population.

The current research studied a sample of about 4000 individuals from the Ruhr area of Germany who did not have a history of stroke, coronary heart disease, or heart attack. Subjects were followed for about 8 years, during which 2.2 percent had a stroke, the majority of which were classified as ischemic. Upon looking at their coronary artery calcification (CAC) score, it was found that those individuals who had a stroke had higher scores at baseline. The predictive value held true for both sexes, but was only valid in those individuals younger than 65.

Study authors state, These observations indicate that among cohorts without apparent risk, subjects exist that nonetheless exhibit a high stroke incidence. On the basis of our data, CAC is suitable to identify those subjects.

To put it another way, added ACSH's Dr. Gilbert Ross, CAC score is another biomarker for increased risk of stroke. Such micro-calcifications have already been shown to be predictive of cardiac events, so it's no surprise to find this test predictive of cerebrovascular disease as well. A high CAC score should be another warning signal for doctors to warn such patients about dealing with remediable risks, such as blood pressure and smoking.