Protein may predict heart attack and early death, not stroke

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People with high levels of a protein called C-reactive protein (CRP), a marker for inflammation in the blood, may be at higher risk for heart attack and death but not stroke, according to a study published in the October 20, 2009, print issue of *Neurology,* the medical journal of the American Academy of Neurology.

The study involved 2,240 people from the Northern Manhattan Study who were 40 years old or older and stroke-free. Of the group, 63 percent were Hispanic, 20 percent non-Hispanic black and 15 percent non-Hispanic white residents.

All participants had their blood tested for CRP levels and were evaluated for stroke and heart attack risk factors. They were followed for an average of eight years. In that time, there were 198 strokes, 156 heart-related events and 586 deaths.

The researchers found that people with CRP levels greater than three milligrams per liter were 70 percent more likely to suffer a heart attack and 55 percent more likely to die early compared to people who had levels of one milligram per liter or less of the protein in their blood. The protein was not associated with an increased risk of stroke once other risk factors were taken into account.

"The role of this protein in predicting risk of stroke has been controversial although prior studies have found it to be a marker for predicting risk of heart disease," said study author Mitchell Elkind, MD,

MS, of Columbia University Medical Center in New York and a Fellow with the American Academy of Neurology. "However, in our large, multiethnic population, CRP levels did not play a role in predicting stroke, though they may still help determine whether someone is at risk of heart attack or early death."

CRP protein levels are associated with such medical and lifestyle risk factors as diabetes, smoking, alcohol consumption and physical activity. "It appears that by living a healthy lifestyle, one may be able to lower these protein levels, thus lowering the risk of cardiac events and possibly early death," said Elkind. "It may be that the failure of CRP to predict stroke in our study, unlike in some other populations, reflects the fact that our population is older and has more of these risk factors. While CRP may be predictive in generally young healthy people, it may be less useful among older, sicker people. More research needs to be done on why the protein wasn't able to predict stroke in the same manner as heart disease."

Source: American Academy of Neurology (news : web)