Cancer Advances
News for Patients from ASCO's Journal of Clinical Oncology

March 16, 2009

STUDY FINDS ASSOCIATION BETWEEN INFLAMMATORY PROTEIN AND CANCER RISK, MORTALITY

A large Danish study has found that C-reactive protein (CRP)—a blood-based protein that indicates inflammation in the body and is used to predict heart disease risk—may also be associated with the risk of developing cancer and with earlier cancer death.

Many patients at risk for heart disease undergo testing for blood levels of CRP. This study suggests that the CRP test may also one day be used to provide information on cancer risk and prognosis.

The researchers found that patients with high blood levels of CRP have a 30 percent greater risk of developing any cancer later in life, and were associated with the risk of developing lung and possibly colorectal cancers, compared with people with low levels of this protein. Researchers also found that among people with cancer, those with high CRP levels before their diagnosis died sooner than people with cancer who did not have elevated CRP.

Researchers said they are not yet sure of the precise link between CRP levels and cancer, but proposed two hypotheses: 1) high CRP levels indicate the presence of very early, but "hidden" cancer, or 2) chronic inflammation (which is characterized by high CRP levels) promotes cancer growth.

The analysis included 10,408 participants from the Copenhagen City Heart Study, a large study launched in 1976 to explore risk factors for heart disease. All participants were tested for baseline CRP levels using a high-sensitivity CRP blood test when they were enrolled in this study.

After 16 years, 1,624 participants developed cancer. People with a high baseline CRP (more than 3 mg/L) had a 30 percent greater risk of developing any cancer compared with those whose CRP was less than 1 mg/L.

Among people diagnosed with cancer during the study period, those with localized cancer who had baseline CRP of more than 3 mg/L were 80 percent more likely to die sooner than those with CRP levels under 1 mg/L.

What This Means for Patients

These findings must be confirmed by additional studies before the CRP test can be recommended as a routine way to assess cancer risk and mortality. If confirmed, this study suggests that CRP testing, which is simple and frequently performed for people at risk of heart disease, could help doctors identify which patients need to be screened more frequently for cancer.

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- What is Cancer: www.cancer.net/cancerbasics
- Cancer Risk Factors: www.cancer.net/cancerbasics
- Cancer Prevention: www.cancer.net/cancerbasics