

Anti-Inflammatory Drugs May Mask Prostate Cancer Marker

Atlanta 2008/09/08 -Regular use of nonsteroidal anti-inflammatory drugs (NSAIDs), such as aspirin and ibuprofen, may reduce serum levels of the prostate biomarker, PSA (prostate specific antigen), and hence may alter the detection of prostate cancer in individuals who take these medications. That is the conclusion of a new study in the October 15, 2008 issue of *CANCER*, a peer reviewed journal of the American Cancer Society.

Chronic inflammation has been linked to many different types of malignancies, including prostate cancer. Researchers suspect that inflammation associated with prostate cancer may occur through a variety of mechanisms such as infection, hormonal changes, physical trauma, urine reflux, and dietary habits. Studies have shown that cyclooxygenase (COX) enzymes, which are inhibited by NSAIDs, play an important role in inflammation. In addition, several reviews have indicated that NSAID use is associated with a lower incidence of prostate cancer.

However, there is little data on the precise relationship between NSAID use and levels of PSA, a commonly measured marker used in prostate cancer screening. For their study, led by Dr. Singer of the University of Rochester Medical Center, researchers compared blood PSA levels and NSAID and acetaminophen consumption in a large group of men in the United States.

The investigators determined PSA levels in 1,319 men over the age of 40 years who participated in the 2001-2002 National Health and Nutrition Examination Survey (NHANES), a massive health census conducted by the Centers for Disease Control and Prevention. Individuals who used NSAIDs regularly had PSA levels that were approximately 10 percent lower compared to men who did not take these drugs.

The investigators say their study suggests that regular NSAID consumption may reduce serum PSA levels. What impact this may have on the development of prostate cancer, irrespective of PSA, is unclear.

"Given the widespread consumption of NSAIDs and the regular use of PSA for the assessment of prostate cancer risk, the potential implications of our findings may be substantial and warrant further investigation," the authors wrote.

Article: "PSA levels in relation to NSAID and acetaminophen consumption: Results from the 2001-2002 National Health and Nutrition Examination Surveys." Eric A. Singer, Ganesh S. Palapattu, and Edwin van Wijngaarden. *CANCER*; Published Online: September 08, 2008 (DOI: 10.1002/cncr.23806); Print Issue Date: October 15, 2008.

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