MedicalXpress

# Long-term anti-inflammatory drug use may increase cancer-related deaths for certain patients

December 19 2016

Regular use of over-the-counter non-steroidal inflammatory drugs (NSAIDs) such as aspirin and ibuprofen is associated with an increased risk of dying in patients diagnosed with Type 1 endometrial cancers, according to a new population-based study led by The Ohio State University Comprehensive Cancer Center - Arthur G. James Cancer Hospital and Richard J. Solove Research Institute (OSUCCC - James).

In this observational study, a multi-institutional team of cancer researchers sought to understand the association of regular NSAID use and the risk of dying from endometrial cancer among a cohort of more than 4,000 patients.

They found that regular NSAID use was associated with a 66 percent increased risk of dying from endometrial cancer among women with Type 1 endometrial cancers, a typically less-aggressive form of the disease. The association was statistically significant among patients who reported past or current NSAID use at the time of diagnosis, but it was strongest among patients who had used NSAIDs for more than 10 years in the past but had ceased use prior to diagnosis. Use of NSAIDs was not associated with mortality from typically more aggressive, Type 2 cancers.

"There is a increasing evidence that chronic inflammation is involved in endometrial cancer and progression and recent data suggests that

inhibition of inflammation through NSAID use plays a role," says Theodore Brasky, PhD, co-lead author of the study and a cancer epidemiologist with the OSUCCC - James. "This study identifies a clear association that merits additional research to help us fully understand the biologic mechanisms behind this phenomenon. Our finding was surprising because it goes against previous studies that suggest NSAIDs can be used to reduce inflammation and reduce the risk of developing or dying from certain cancers, like colorectal cancer."

Researchers point out that information about specific dosages and NSAID use after surgery was not available in the current study, which represents a significant limitation.

"We are continuing to analyze the biologic mechanisms by which inflammation is related to cancer progression in this specific cohort of patients," adds Ashley Felix, PhD, co-lead author of the study and cancer epidemiologist with the OSUCCC - James and College of Public Health.

They report their findings in the Dec. 16, 2016, issue of the *Journal of the National Cancer Institute*.

"These results are intriguing and worthy of further investigation," says David Cohn, MD, gynecologic oncology division director at the OSUCCC - James and co-author of the study. "It is important to remember that endometrial cancer patients are far more likely to die of cardiovascular disease than their cancer so women who take NSAIDs to reduce their risk of heart attack—under the guidance of their physicians—should continue doing so. While these data are interesting, there is not yet enough data to make a public recommendation for or against taking NSAIDS to reduce the risk of cancer-related death."

Cohn says any woman concerned about the risks of long-term NSAID use should consult with her physician.

**More information:** Theodore M. Brasky et al, Nonsteroidal Anti-inflammatory Drugs and Endometrial Carcinoma Mortality and Recurrence, *Journal of the National Cancer Institute* (2016). DOI: 10.1093/jnci/djw251