NSAIDs Boost Ulcerative Colitis and Crohn’s Disease Risk for Women

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An association between non-steroidal anti-inflammatory drugs and these two inflammatory bowel disorders has long been suspected but not, until now, documented.

The use of non-steroidal anti-inflammatory drugs (NSAIDs), but not aspirin or acetaminophen, appears to increase the risk of ulcerative colitis and Crohn’s disease among women. Greater frequency, higher doses, and prolonged duration of NSAID use was associated with about a two-fold increase in the risk for both diseases, Ashwin Ananthakrishnan, MD, of Massachusetts General Hospital, and his coauthors reported in the Annals of Internal Medicine.

“Such an association has been long suspected clinically. Now there is objective data to support it,” said Dr. Ananthakrishnan in an interview.

The safest pain killer for ulcerative colitis or Crohn’s disease is acetaminophen, he says.

“Right now, our finding is more interesting from a mechanism standpoint and attempts to provide insights into what factors influence development of ulcerative colitis or Crohn’s disease,” says Dr. Ananthakrishnan. “Our findings should not be taken to indicate that aspirin may be safer than NSAIDs for pain relief. In clinical practice, we continue to suggest minimizing the use of both NSAIDs and aspirin where appropriate, as prior studies have also raised concern that use of such agents may be associated with a flare.”

In the study, Dr. Ananthakrishnan and colleagues found that, compared with nonusers, women who used NSAIDs for 15 or more days per month had a relative risk of 1.87 for developing ulcerative colitis and a relative risk of 1.59 for developing Crohn's disease. Women who took NSAIDs more than five times per week had an elevated risk of ulcerative colitis (RR 1.78) and Crohn's disease (RR 1.71), as did women with more than six years of NSAID use (ulcerative colitis: RR 2.00 and Crohn's disease: RR 2.83). On the other hand, dose, duration, or frequency of aspirin or acetaminophen use was not associated with increased risk of either condition.

It’s not clear why the risk is elevated with NSAIDs but not with aspirin. It could be a relative difference in their effects on Cox-1 and Cox-2 enzymes, he suggests, with selective suppression of one by aspirin and both by NSAIDs.

Other studies have shown that regular aspirin use may be associated with the development of Crohn’s disease, but not of ulcerative colitis. A large, prospective European cohort study found a strong positive association between regular aspirin use and Crohn's disease, but not ulcerative colitis. The British authors concluded that if other findings confirm this association, then aspirin may adversely affect the development of Crohn’s disease in middle-aged to elderly populations.

Our understanding of the pathogenesis of both ulcerative colitis and Crohn’s disease remains “incomplete,” says Dr. Ananthakrishnan, and further comparisons of the two forms of analgesics are needed to inform the best way to control pain for these patients.

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