

Study examines NSAID use, risk of anastomotic failure following surgery

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Use of nonsteroidal anti-inflammatory drugs (NSAIDs) was associated with an increased risk of anastomotic leak at the surgical junction in patients undergoing nonelective colorectal procedures, according to a report published online by *JAMA Surgery*.

NSAIDs are a broad class of drugs used to relieve pain and inflammation and have long been used to treat [postoperative pain](#). Their [postoperative](#) use has expanded with the recent development of intravenous formulations and because NSAIDs avoid the adverse effects of opioid pain relievers such as respiratory depression, impaired motility of the gastrointestinal tract and others, according to background in the study.

Timo W. Hakkarainen, M.D., M.S., of the University of Washington Medical Center, Seattle, and coauthors examined postoperative NSAID use and anastomotic complications. The study included 13,082 patients undergoing bariatric or colorectal surgery at 47 hospitals in Washington state from 2006 through 2010 and used data from the Surgical Care and Outcomes Assessment Program.

The authors report that 3,158 (24.1 percent) of the 13,082 patients received NSAIDs postoperatively. Patients who received NSAIDs were younger, had lower levels of co-existing illnesses, a lower cardiac risk index and had elective procedures more frequently than those patients who did not receive NSAIDs.

Results show the overall 90-day rate of anastomotic leaks was 4.3

percent for all patients (4.8 percent in the NSAID group and 4.2 percent in the non-NSAID group). NSAIDs were associated with a 24 percent increased risk for anastomotic leak after risk adjustment and this association was isolated to nonelective (urgent) colorectal surgery, where the leak rate was 12.3 percent in the NSAID group and 8.3 percent in the non-NSAID group. There was no effect for patients undergoing elective (scheduled) colorectal or bariatric surgery, according to the results.

"The results of this large statewide cohort study show that, among patients undergoing nonelective colorectal resection, postoperative NSAID administration is associated with a significantly increased risk for anastomotic complications. Given that other analgesic regimens are effective and well tolerated, these data may be enough for some surgeons to alter practice patterns," the study concludes.

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