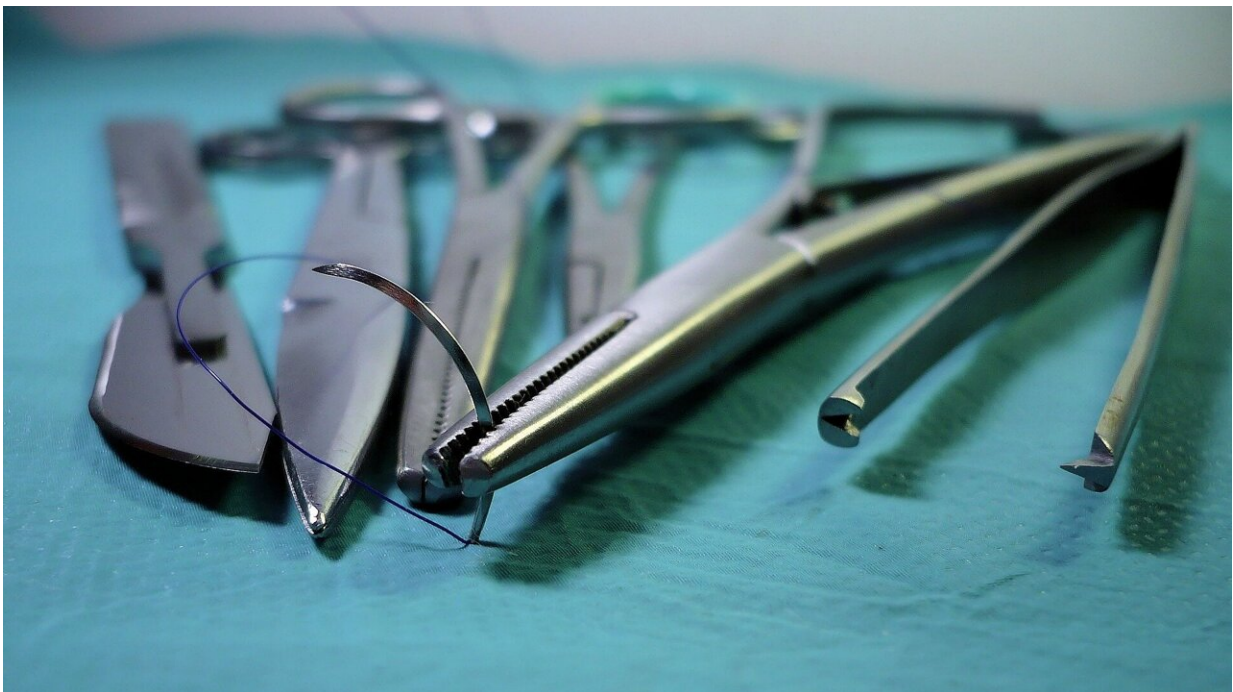


Drugs can reduce recurrence after bowel cancer surgery, new thesis suggests

May 30 2024, by Claes Björnberg



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A [thesis](#) at Umeå University shows that certain non-steroidal anti-inflammatory drugs, known as NSAIDs, can help patients who have undergone surgery for colorectal cancer. These patients suffer fewer

recurrences of cancer and fewer leaks at the surgical site, so-called anastomotic leakage.

The researchers investigated whether NSAIDs, if taken in the first week after surgery for rectal cancer, could reduce the risk of recurrence-free survival. No conclusive effect were seen. This may be because there is no effect, that there were too few patients in the study, that different NSAIDs were used, or that a longer treatment with NSAIDs may be needed to see an effect.

"When we included a larger group of patients in the study, we saw positive effects in those treated with NSAIDs. These patients had a reduced rate of cancer recurrence, especially for left-sided colon cancer, and a reduced rate of anastomotic leakage," says the study's author Oskar Grahn, Department of Diagnostics and Intervention.

Furthermore, the biological processes that can explain why anastomotic leakage negatively affect long-term cancer outcomes were investigated. They discovered that even though patients who suffered anastomotic leakage or intra-abdominal abscess had normal levels of a protein called C-reactive protein (CRP) 41 days after surgery, there were 72 proteins that were upregulated and five that were downregulated still. This suggests that there may still be harmful processes going on in the body, even though one might think that the negative effects already have passed.

Finally, it was studied how common a certain mutation of the gene for the enzyme cyclooxygenase (COX-2) is among patients with colorectal cancer in Sweden. COX-2 is one of the enzymes that NSAIDs inhibit. However, it was not possible to confirm a previous finding showing that this mutation could be linked to an increased risk of anastomotic

leakage.

In conclusion, research suggests that NSAIDs may have beneficial effects on cancer recurrence and anastomotic leakage in patients with [colorectal cancer](#), depending on the location of the tumor and the anastomosis. This is especially the case for left-sided colon cancer, as these tumors often overexpress COX-2.

"Further research is needed to confirm these results and to investigate whether a longer treatment with NSAIDs could have an even greater effect," says Oskar Grahn.

More information: Thesis: [Modulating the inflammatory response after colorectal cancer surgery: friend or foe?](#)

Provided by Umea University

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