Gastric medications increase risk for recurrence of Clostridium difficile infection
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This photograph depicts Clostridium difficile colonies after 48hrs growth on a blood agar plate; Magnified 4.8X. C. difficile, an anaerobic gram-positive rod, is the most frequently identified cause of antibiotic-associated diarrhea (AAD). It accounts for approximately 15-25% of all episodes of AAD. Credit: CDC

Researchers at Mayo Clinic have found patients who use gastric suppression medications are at a higher risk for recurrent Clostridium difficile (C-diff) infection. C-diff is a bacterium that can cause symptoms ranging from diarrhea to life-threatening inflammation of the colon. The study is published in JAMA Internal Medicine.

"In our study, we found that use of gastric acid suppression medications are associated with a statistically significant increased risk of development of recurrent C-diff in patients with a prior episode of C-diff," says Sahil Khanna, M.B.B.S., a gastroenterologist at Mayo Clinic and senior author of the study.

Dr. Khanna says gastric suppression medications studied include proton pump inhibitors, such as omeprazole, and histamine 2 blockers, such as ranitidine, which are commonly prescribed and consumed over-the-counter medications for gastroesophageal reflux disease, peptic ulcer disease or dyspepsia.

In a systematic review and meta-analysis of 16 studies with 7,703 patients with C-diff, 1,525 developed recurrent C-diff. The rate of recurrent C-diff in patients with gastric suppression was 22.1 percent, compared to 17.3 percent in patients without gastric acid suppression.

Dr. Khanna urges caution in interpreting these findings due to variables not considered in the study, such as the underlying reason why the gastric acid suppressant was needed. However, he says the findings suggest that patients with C-diff who receive gastric acid suppressants may be at increased risk of C-diff recurrence. "It may be reasonable to re-evaluate the need for these medications in patients with C-diff," Dr. Khanna says.

Provided by Mayo Clinic