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Antibiotic Treatment Effective in Treating Irritable Bowel Syndrome

A ground-breaking antibiotic therapy developed at Cedars-Sinai Medical Center is the first potential drug treatment to provide irritable bowel syndrome patients with long-lasting relief of their symptoms even after they stop taking the medication, according to a study published in the Jan. 6 issue of the New England Journal of Medicine.

Unlike in traditional therapies, such as when taking antidepressant and other medications that have benefits only while on the drug, patients in the study reported relief of their symptoms extended for weeks after completing treatment with rifaximin. Rifaximin is a minimally absorbed antibiotic that stays in the gut. Specifically, patients reported relief from bloating, less abdominal pain and improved stool consistency for up to 10 weeks.

While the concept of bacteria playing a key role in this condition was controversial when first unveiled a decade ago, this research confirms that bacteria in the gut, also known as "gut flora," trigger the symptoms of the chronic condition, affecting an estimated 30 million people in the United States.

These findings show that targeted antibiotics provide safe and effective long-lasting relief for this condition, said Mark Pimentel, M.D., GI Motility Program Director and Principal Investigator of the clinical trials at Cedars-Sinai.

"For years, the treatment options for IBS patients have been extremely limited," Pimentel said. "IBS often does not respond well to treatments currently available, such as dietary changes and fiber supplements alone. With this antibiotic treatment, the patients feel better, and they continue to feel better after stopping the drug. This means that we did something to strike at the cause of the disease."

In two, 600-plus patient double-blind trials, IBS patients with mild to moderate diarrhea and bloating were randomly assigned to take a 550 milligram dose of rifaximin or placebo three times daily for two weeks. Study participants were then followed for 10 weeks more. About 40 percent of patients who took the drug reported they had significant relief from bloating, abdominal pain and loose or watery stools. Further, that relief was sustained for weeks after they stopped taking the antibiotic.

Doctors commonly categorize IBS patients with a "constipation predominant" condition, a "diarrhea-predominant" condition, or an alternating pattern of diarrhea and constipation. In addition, patients often experience abdominal pain or cramps, excess gas or bloating, and visible abdominal distension.

Because, the cause of the disease had been elusive, treatments for the disease historically have focused on relieving its symptoms with medications that either slow or speed up the digestive process. Earlier research by Pimentel and colleagues documents a link between bloating, the most common symptom, and bacterial fermentation in the gut related to small intestine bacterial overgrowth, or SIBO.

Rifaximin is approved by the U.S. Food and Drug Administration to treat travelers' diarrhea and hepatic encephalopathy.

Besides Cedars-Sinai, other centers participating in the clinical trials included Beth Israel Deaconess Medical Center in Boston, University of Michigan Medical Center in Ann Arbor, University of North Carolina at Chapel Hill, and Connecticut Gastroenterology Institute in Bristol, Conn.

Rifaximin is marketed by Salix Pharmaceuticals Inc. Salix also provided funding for the studies. Pimentel discovered the use of rifaximin for IBS, and Cedars-Sinai holds patent rights to this discovery and has licensed rights to the invention to Salix. Dr. Pimentel is a consultant to Salix, Inc, and serves on its scientific advisory board.

Source:
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