

New constipation treatment under study for Parkinson's patients

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This is Dr. John C. Morgan, neurologist at the Medical College of Georgia at Georgia Regents University and Director of the National Parkinson's Foundation Center of Excellence at Georgia Regents Medical Center Credit: Phil Jones

Georgia Regents Medical Center is among about a dozen centers nationally exploring the potential of a new drug that may offer relief to people with Parkinson's who have failed standard approaches to treating constipation.

"Constipation in Parkinson's is very prevalent," said Dr. John C. Morgan, neurologist at the Medical College of Georgia at Georgia Regents

University and Director of the National Parkinson's Foundation Center of Excellence at Georgia Regents Medical Center.

In fact, it's one of a handful of related problems, like an impaired sense of smell, that can actually precede a Parkinson's diagnosis by years then remain a factor as more classic symptoms, such as tremors and stiffness, progress, Morgan said. Additionally, [constipation](#) can be a side effect of the myriad of medications patients may take for Parkinson's.

The new study is sponsored by Rhythm, a Boston-based biotech company exploring RM-131's potential in a variety of gastrointestinal problems. The Michael J. Fox Foundation for Parkinson's Research provided Rhythm funding for earlier-phase clinical trials of the drug for constipation in Parkinson's.

Study participants will give themselves a daily injection of an agonist for ghrelin, called RM-131. Ghrelin is a peptide hormone that naturally stimulates gut motility independent of dopamine, a [chemical messenger](#) in the brain and gut damaged in Parkinson's, said Morgan. In the [gastrointestinal tract](#), ghrelin also is believed to enhance cell proliferation, inhibit cell death and suppress inflammation.

The Augusta-based center is enrolling about a half-dozen patients in the two-week study offered through the Parkinson's Study Group that will compare the efficacy of this drug that activates ghrelin to placebo.

Early studies of RM-131 in healthy individuals have shown it is safe and well-tolerated for up to 14 days and that it improves the rate of stomach emptying and bowel function, both important in avoiding constipation.

While better-known symptoms of Parkinson' are clear indicators that movement is affected, a healthy gut also depends on movement to get food through the body, said Morgan, a study Principal Investigator.

Parkinson's appears to result from the death of brain cells, also called nerve cells, which produce dopamine, a chemical messenger important to movement. The gut actually has as many nerve cells as the brain which is why the destruction also takes a toll on a patient's ability to defecate, Morgan said.

"The gut does not move correctly all the way down – from the mouth to the anus, we think," Morgan said. "But it can also be a problem with the pelvic floor because when we poop, we actually have to relax our muscles to get stool out and patients with Parkinson's may have difficulty relaxing those pelvic floor muscles."

Study participants will keep a diary of their bowel activity and keep researchers posted on any abdominal pain they may experience. The most common side effects reported for RM-131 include dizziness, drowsiness and loose stools or diarrhea.

Morgan notes that while the cause of nerve cell death in the brain and gastrointestinal tract in Parkinson's is not known, the brain shows signs of inflammation, which can indicate an autoimmune response, as seen in diseases such as lupus, arthritis and multiple sclerosis.

He always encourages patients to eat well and stay as active as possible and regularly asks about their bowel habits. However, even with due diligence, a percentage of patients continue to struggle with constipation, some to the point that they become impacted and require external stimulation, such as an enema, to get relief. In addition to the obvious discomfort, failure to defecate means the body holds onto toxins for extended periods, which can actually result in mental confusion, Morgan said.

While constipation is a transient state for most people, a study following thousands of Japanese-American men for decades showed the incidence

of Parkinson's was highest in those reporting less than one bowel movement daily and declined as the number of regular bowel movements increased.

Provided by Medical College of Georgia

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