

Botanical Medicine Reduces Rectal Cancer Treatment Side Effects That Can Sideline Surgeries

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by Michael Masciadrelli



Ancient Chinese traditional medicine significantly reduces the side effects of rectal cancer treatments that, in some patients, can be so toxic that treatment must be paused, or stopped, which diminishes its effectiveness. The positive news about the botanical medicine results from a new study led by Yale Cancer Center (YCC) researchers at Yale School of Medicine (YSM) that was published in the [Journal of Gastrointestinal Oncology](#) on June 30.

In the study, patients who took YIV-906, an herbal medicine pill, saw a significant reduction in gastrointestinal (GI) side effects—including severe diarrhea, fatigue, and nausea—from chemotherapy and radiation. Chemo-radiation typically is given prior to surgery to shrink tumors and if the regime cannot be tolerated the surgery can be delayed or canceled completely.

Co-author of the study, [Yung-Chi Cheng](#), PhD, who is the Henry Bronson Professor of Pharmacology at the Yale School of Medicine, helped develop YIV-906 and also led the first [international clinical trial](#) a few years ago.

“YIV-906 is a botanical complex mixture, which has been historically used in patients with GI disorders,” Cheng said. “This study is the first demonstration of YIV-906’s effectiveness in reducing GI toxicity caused by chemotherapy and radiation, showing the medicine’s potential of improving the patient’s quality of life while increasing treatment effectiveness.”

The nearly four-year phase II study (2014-2018) focused on 24 people with aggressive rectal cancers who were each given YIV-906 along with chemotherapy and radiation prior to surgery. At the time of surgery, about 17% of patients had a complete or near-complete response to the treatment. Most patients lived at least five years or more on the treatment regimen with a five-year overall survival rate of 82%. No patients experienced grade-four (the most severe) toxicities, and there were only two grade-three diarrhea cases.

“We didn’t have any serious toxicity associated with the drug and patients found taking the drug in pill form very easy and tolerable,” said senior author [Susan Higgins](#), MD, a professor of therapeutic radiology and of obstetrics, gynecology, and reproductive sciences at Yale School of Medicine.

The researchers say YIV-906 should be further evaluated in a randomized clinical trial to assess if there are similar outcomes for other GI and pelvic cancers.

“You never forget patients with a local recurrence because they are in a lot of pain,” said co-first author [Kimberly Johung](#), MD, PhD, associate professor of therapeutic radiology and chief of the gastrointestinal radiotherapy program at Yale Cancer Center and Smilow Cancer Hospital. “Sometimes you can surgically remove these pelvic tumors, but many patients are not eligible.” That’s because not all tumors are resectable. “If we can improve outcomes for those patients

with local recurrences, with the addition of this agent, I think that would be very impactful.”

Repeated radiation is associated with more severe toxicities, she says, and future studies could look at YIV-906 in this context.

[Nipun Verma](#), MD, PhD, from Yale Cancer Center was also a co-first author on the study. Other YCC authors include [Jeremy Kortmansky](#), MD; [Wajih Zaheer](#), MD, FACP; [Jill Lacy](#), MD; [Michael Cecchini](#), MD; [Stacey Stein](#), MD; [Wing Lam](#), PhD; [Shwu-Huey Liu](#), PhD; and [Vikram Reddy](#), MD, PhD, MBA, FACS, FASCRS.

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