

New Lab Test May Help Identify Foods That Exacerbate Symptoms of IBS-D

By Steve Frandzel

ORLANDO, FLA.—Could a relatively simple lab test enable physicians to identify foods that would exacerbate the symptoms of their patients with irritable bowel syndrome (IBS)? Possibly, according to one researcher who evaluated a novel method of analysis to identify problematic foods for patients with diarrhea-predominant IBS (IBS-D).

“Diarrhea-predominant IBS is a common condition that is often refractory to standard therapy,” said study author Fred Williams, MD, a gastroenterologist in St. Louis. “Though some treatments may improve certain symptoms, no treatment has been shown to improve global IBS-D symptoms.”

Dr. Williams was contacted by a consultant from Signet Diagnostic Corporation (Boca Raton, Fla.), a specialty laboratory marketing a proprietary test to identify non-immunoglobulin E (IgE)-mediated immunologic food reactions that trigger IBS-D.

At first, Dr. Williams was leery of the proposition and doubted the value of the test, but decided to give it a try anyway.

“I was incredibly skeptical,” said Dr. Williams. “The reason I was willing to try it was because it couldn’t do any harm to patients; it’s hard to injure someone by eliminating certain foods from their diet. I rounded up some of my more severe IBS patients, and the next thing I knew, many were getting much better.”

The assay is named the Mediator Release Test (MRT) and is the foundational component of the Lifestyle Eating and Performance (LEAP) Program, a strategy that helps physicians identify patients with immune-based, but non-IgE-mediated, adverse food reactions. The MRT works as follows: Blood drawn from patients with IBS-D is overnighted to Signet’s lab, where the blood is portioned into 150 test vials, each containing a different purified food extract, including those from meats, vegetables, fruit and food additives that are common in typical diets. When a particular food antigen reacts with a patient’s blood, leukocytes release cytokines and other proinflammatory or proalgesic mediators. As a result, the leukocytes shrink—a volume change that the MRT is designed to detect.

“The test measures the amount of cell

volume versus total free volume in the aliquot,” explained Dr. Williams. “If the [white blood cell] volume decreases significantly, we know there has been reactivity.”

Based on the test results, a patient-specific elimination diet is created that omits the reactive foods.

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Dr. Williams’ findings were based mostly on empiric evidence, but he also closely followed 10 patients, all of whom met the Rome II criteria for IBS-D and were tested with the MRT. A symptom survey was employed to record the patients’ IBS-D symptoms, as well as systemic symptoms. The survey graded multiple GI and systemic symptoms on a scale of 0 to 4, with increasing severity represented by a higher number. The maximum points possible for the entire survey was 236; the maximum score for the GI portion of the survey was 36.

Prior to beginning the MRT-based elimination diet, the average score for the entire survey was 56.9; for the GI portion it was 19.1. After at least one month of being on the LEAP MRT elimination diet, the average scores had decreased to 26.3 and 6.3, respectively. Patients generally reported a marked reduction in their IBS-D symptoms, decreased systemic symptoms, and an overall increase in their feeling of well-being.

Dr. Williams, now on the LEAP Board of Medical Advisors, estimated that of the 60 to 70 patients who enrolled in the LEAP program, three-quarters have experienced IBS-D symptom relief.

“Among people who really stuck to the diet, the response was very noticeable,” he said. He also noted that the responses often encompassed non-GI-related symptoms, including relief of migraine headaches.

“There’s a growing body of knowledge that says migraines may be caused by food sensitivities,” said Dr. Williams. “I had a lot of patients come back to me saying that their diarrhea was better [and] that their headaches or sinus congestion had also improved.”

Dr. Williams plans to conduct a prospective, randomized trial of the LEAP system, and acknowledged that his conclusions—based largely on observational data—are probably not enough to convince many of his colleagues to routinely order the LEAP MRT for their patients with IBS-D. He added that the system is not effective for the treatment of patients with constipation-predominant IBS (IBS-C). This is consistent with medical literature showing that IBS-D, and not IBS-C, may have an immunologic etiology.

Calling the results interesting and promising, Brooks Cash, MD, Assistant Professor of Medicine at Uniformed Services University of the Health Sciences, and Director of Clinical Research in the GI Division of the Comprehensive Colorectal Cancer Center Initiative, National Naval Medical Center, in Bethesda, Md., noted that because these data were largely anecdotal, definitive conclusions about LEAP’s efficacy must be tempered with caution.

“Larger numbers and longer-term follow-up would be an important step forward in demonstrating the potential for this technology before considering its use in regular practice,” said Dr. Cash. “If the findings are borne out in further studies, we would have a potentially significant method to evaluate IBS-D patients, and focus on removing offending items from their diets. It could change the way we evaluate and subsequently manage many patients we routinely see in our GI practices.”