

Accurate celiac diagnosis in trial of new blood test



By Will Boggs MD

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(Reuters Health) - An experimental blood test accurately identifies people who do, or don't, have celiac disease, even if they are following gluten-free diets, researchers say.

Celiac disease is an autoimmune disorder that affects roughly one percent of people in the U.S. Those with the disease must avoid foods that contain the gluten protein from wheat, barley or rye. But far more than one percent of the population is following a gluten-free diet, which makes it harder to diagnose real cases of celiac disease.

The two main blood tests used to screen for celiac disease rely on detecting an immune response to gluten, but that immune response gradually disappears in people who avoid gluten.

"Unfortunately, many persons with gluten sensitivity go gluten-free without consulting their clinician for exclusion of celiac disease," said lead study author Dr. Vikas K. Sarna's from Oslo University Hospital in Norway. "In such cases, guidelines recommend . . . performing a gluten challenge involving daily consumption of gluten for up to 8 weeks, followed by an endoscopic procedure for a biopsy taken from the small intestine (duodenum). Our blood test may replace such a gluten challenge and duodenal biopsy."

The new test is designed to detect immune cells in a blood sample that are specifically targeted at gluten proteins, even when the individual hasn't been recently exposed to gluten.

Sarna's team tried their test on 62 patients with celiac disease and 19 individuals without celiac disease who were on a gluten-free diet, 10 patients with celiac disease who were eating foods containing gluten

and 52 healthy individuals following normal diets. They also used the currently available celiac tests on these participants for comparison.

The old tests detected celiac disease in 9 out of 10 patients who weren't on a gluten-free diet. But the old tests identified celiac disease in only 4 of the 62 patients who'd been following a gluten-free diet.

The new test, by comparison, was 96 percent accurate in distinguishing celiac disease patients from people who didn't have celiac disease but were still following gluten-free diets.

It was 95 percent accurate for distinguishing celiac disease patients who were eating gluten-containing foods from healthy individuals following normal diets, the researchers report in *Gastroenterology*.

"We calculated that our test is stronger to exclude rather than confirm the diagnosis of celiac disease in gluten sensitive persons," Sarna said. "Although we need more research in this field, we propose that the test be used to exclude celiac disease in persons on a gluten-free diet," he told Reuters Health by email.

"It is important to point out that this test is still not available for commercial use, although there is a huge demand of a test for celiac disease that can be applied for persons that are already on a gluten-free diet," Sarna said. "I do hope that the promising results from our study can initiate commercial initiatives along with more research, to allow this test to be used in the general public in the near future."

Several members of the research team have applied for a patent on this testing technology, and some disclose that they are consultants for companies. The clinical trial in the current study was paid for by the Research Council of Norway, the authors note.

"Researchers are actively working to identify tests that may allow for screening for celiac disease in patients on a gluten-free diet," said Dr. Maureen Leonard from Harvard Medical School's Center for Celiac Research and Treatment in Boston, who was not involved in the study. "These are not clinically available tests and require further work before they are accurate and available for clinical use," she said in an email.

“Additionally, these tests may benefit only people with a certain genetic background,” Leonard said.

“Therefore, the general public should be aware that before self-imposing a gluten-free diet they must be tested for celiac disease.”

Celiac disease must be confirmed with a duodenal biopsy, Leonard added. “If a patient begins a gluten-free diet prior to being screened for celiac disease, all available blood tests to screen for celiac disease and duodenal biopsies will no longer be accurate.”

SOURCE: <http://bit.ly/2B7EeBP> Gastroenterology, online November 13, 2017.