

School of Medicine News

Study Shows Widespread Screening for Celiac Disease Means Many More Correct Diagnoses

Friday, October 19, 2007



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An earlier diagnosis can prevent potentially life-threatening complications

People suffering from celiac disease routinely wait for years to get an accurate diagnosis, because the disorder causes a wide variety of symptoms and there is a lack of awareness of celiac disease among many primary care physicians. But a study by researchers at the Center for Celiac Research at the University of Maryland School of Medicine has found that when primary care physicians offer to test all patients with symptoms of celiac disease, the diagnostic rate increases 32- to 43-fold. Early diagnosis is important to prevent serious consequences from celiac disease. Results from the multi-center study were recently published in the American Journal of Gastroenterology.

"In countries where most people are of European ancestry, celiac disease is one of the most common lifelong disorders," says Alessio Fasano, M.D., professor of pediatrics, medicine and physiology at the University of Maryland School of Medicine and director of its Center for Celiac Research. "In the United States, many cases remain undiagnosed because symptoms vary from person to person and because physicians have not been adequately trained in what to look for. However, a diagnosis means that patients can be advised to eat a gluten-free diet in order to stop the progression of celiac disease. If the chronic symptoms continue, patients are at risk of long-term complications such as anemia, infertility, osteoporosis or even cancer."

Celiac disease is a genetic disorder affecting adults and children. People with the disorder are unable to eat foods that contain gluten, which is found in wheat and other grains. Ingestion of gluten in people with celiac disease sets off an autoimmune reaction that causes the destruction of the villi in the small intestine. A previous study by the University of Maryland Center for Celiac Research found that nearly one out of every 133 Americans suffers from celiac disease. It is twice as common as Crohn's disease, ulcerative colitis and cystic fibrosis combined.

"The projected number of people in the United States with celiac disease could be as high as three million, yet only a small fraction of these cases has been correctly diagnosed and treated," says Dr. Fasano, lead author on the paper. "For this reason, we undertook a multi-center, case-finding study using blood testing of adults who were seeking medical attention from their primary care physician. We wanted to know whether an active case-finding strategy could increase the frequency of diagnosis, and we also wanted to know the most common clinical presentations of the condition in primary care settings."

"Celiac disease was diagnosed in 22 of the 976 enrolled patients," says Dr. Fasano. "In our study, the diagnostic rate increased from 0.05 percent to 2.3 percent. This is a conservative estimate, as more cases could have been detected among the 666 individuals who were eligible for the study but refused the blood screening test."

The study was conducted at 25 locations in the United States and Canada from 2002 to 2004. During the 12 months preceding the study, only 15 patients had been diagnosed with celiac disease out of 54,988 individuals seen by the participating practices. For the study, any individual over the age of 18 seeking care from a physician at a study site was informed of the study and asked to participate. Those who volunteered completed a questionnaire assessing their risk for celiac disease. Those who indicated they had one or more risk factors were then eligible for the study. All at-risk individuals were provided information about celiac disease and were offered free blood testing. In total, 976 people were enrolled in the study.

Additionally, patients experiencing intestinal symptoms such as diarrhea, irritable bowel syndrome, constipation and bloating, as well as non-intestinal symptoms such as thyroid diseases, iron-deficient anemia and osteoporosis were at higher risk for celiac disease compared with the general population.

"Based on the results of this study, we strongly recommend that all individuals be screened by their primary care physician for the large variety of clinical manifestations and conditions associated with celiac disease," says Dr. Fasano. "Those with one or more symptoms should have a blood test and, if positive, should be referred for definitive diagnosis by means of an intestinal biopsy. These results have implications that may result in better patient care, a more cost-effective approach to the diagnosis of celiac disease and a greater awareness among health-care professionals and the general public in North America."