

LETTER FROM THE EDITOR



Currently, patients with celiac disease must adhere to a strict gluten-free diet in order to avoid symptoms. In practical terms, this means foregoing many foods that are staples of a normal diet, including bread, pizza, pasta, cookies, cereal, crackers, and many other items. While successfully avoiding these and other gluten-containing foods is an effective treatment for most patients with celiac disease, these dietary restrictions understandably reduce patients' quality of life. Thus, researchers have continued to look for alternative treatments for this condition.

As reported by Anita Bakshi and coauthors in the article beginning on page 582 of this month's issue, many of these alternative treatment options appear quite promising. One approach that is being explored involves modifying gluten to make it less immunotoxic, either by reducing its ability to bind to antigen-presenting molecules or by selectively breeding wheat that contains fewer T-cell-stimulatory sequences. Via either approach, researchers hope to develop a modified type of wheat that would be safe for consumption by individuals with celiac disease.

Other new treatment approaches seek to prevent celiac disease symptoms by hindering the interaction between gluten and the patient's immune system. Such strategies include using proteases to break down gluten into nontoxic fragments or using transglutaminase inhibitors to limit binding between gluten and the antigen-presenting molecules that trigger T-cell responses.

Finally, some celiac disease treatments are capitalizing on our growing understanding of the immune reaction that ultimately causes celiac disease. For example, one reason why gluten is able to trigger an immune response in patients with celiac disease is because of an increase in gut permeability, which allows immunogenic gluten fragments to gain access to extraluminal tissues. A novel compound called larazotide acetate (AT-1001, Alba Therapeutics) is therefore being tested as a possible treatment for celiac disease, as this drug inhibits an endogenous modulator of gut permeability. Alternatively, an Australian company is working on a vaccine designed

to modify the pathogenic T-cell response triggered by gluten; similar to the desensitization therapy used to treat allergies, this vaccine would prevent the patient's T cells from triggering the downstream immune cascade that causes symptoms.

While none of these new approaches has been approved for the treatment of celiac disease, the wide variety of therapies being tested increases the odds that at least one will succeed. For patients with celiac disease, such a treatment could offer a much-needed alternative to a gluten-free diet. By allowing patients with celiac disease to manage their condition while still enjoying an unrestricted variety of foods, such treatment will hopefully improve their quality of life.

In addition to Bakshi and colleagues' review of new celiac disease therapies, the current issue of *Gastroenterology & Hepatology* also includes a discussion of the extraesophageal signs and symptoms associated with gastroesophageal reflux disease, as well as a literature review discussing the diagnosis and treatment of *Helicobacter pylori* infection. This month's columns also address several interesting topics: *Clostridium difficile* infection in patients with inflammatory bowel disease, the use of Fibroscan to measure liver fibrosis, the use of peroral endoscopic myotomy for treatment of achalasia, and the current status of endoscopic stenting of the pancreatic duct as prophylaxis against post-endoscopic retrograde cholangiopancreatography pancreatitis. Finally, this month's case study describes an inflammatory pseudotumor of the liver that was diagnosed via minimally invasive methods and was managed conservatively. As always, I hope you find these articles interesting, informative, and insightful.

Sincerely,

A handwritten signature in black ink that reads "Gary R. Lichtenstein". The signature is fluid and cursive, with a large, stylized initial "G" and "L".

Gary R. Lichtenstein, MD, AGAF, FACP, FAGG