The Tuesday Minute

Nutritional information.... one byte at a time

This Week's Topic

Gluten Sensitivity: Beyond The Gut

Have you been paying attention to the growing number of wheat free and gluten free alternatives in the marketplace? More and more people are discovering sensitivity to wheat and gluten products. Get ready. That's just the tip of the iceberg. In the coming years, you will see an avalanche of gluten sensitive patients as testing becomes more convenient. What was once thought to be limited to GI disturbances, gluten sensitivity has now been shown to cause multiple problems and, in fact, can have major effects on brain function, longevity, and autoimmunity.

I want to give thanks to a good friend and passionate researcher Dr. Tom O'Bryan who is bringing to light the profound implications of this multisystem problem. He has found over 18,000 articles on gluten sensitivity. So what is gluten? What's the big deal about it? Gluten is the major protein fraction of wheat and contains two other fractions, gliaden and glutenin.

For some people the inability to tolerate these proteins can be a major focal point of their disease process. Traditional symptoms of celiac or wheat allergies include GI disturbances like diarrhea, gas, constipation, nausea, severe intestinal pain, and cramping. The ultimate diagnosis of celiac is when biopsys of the small intestine show villi atrophy. What has been surprising to many of the scientific community is that when a broad population of "healthy" people, both young and old, have their intestines examined, a number of people have documented GI damage without traditional symptoms. But these people have damage in other areas of the body as well, sometimes severe neurological damage.

You see when we eat foods we are sensitive to, we make antibodies to those foods and then those antibodies can attack our tissues and sometimes that tissue is brain tissue. Let's look at some of the conditions associated with gluten sensitivities: migraine headaches, autoimmune disease, dermatitis, severe progressive neuropathy, gait and limb ataxia, iron deficiency, osteoporosis, GERD, seizures, ADD, and ADHD. Other studies have shown atrophy of the cerebellum, severe malabsorption, unexplained neurological changes, even the occurrence of schizophrenia is higher with gluten intolerant individuals.

It makes sense that multiple systems would be affected if we had small intestine malabsorption issues and leaky gut due to gluten sensitivity and the inflammation that accompanies it. Think about it. Fats, glucose, amino acids, minerals like iron and zinc, as well as a host of water and fat soluble vitamins are poorly absorbed.

And since gluten sensitivity will cause intestinal barrier permeability or what we have called "leaky gut", the antibodies your body makes to protect you from bacteria, viruses, yeast, or amoeba can be absorbed into the blood.

Once those antibodies are active, they begin to look for tissue that is similar to what they were created to destroy. Sometimes those antibodies attack healthy tissue. For some people (25% of the patients in one study), the reaction is with cerebellar tissue, antibodies attacking cerebellar tissue, causing atrophy in the brain because the body is attacking itself. Normally, the intact gut provides a very effective barrier against the penetration of antibodies or macromolecules. A damaged gut, however, becomes "leaky" and allows the passage of larger molecules.

As gluten ingestion continues the autoimmune reaction is further exacerbated. This creates a self perpetuated state of bowel inflammation that can only be broken by removing the offending peptide, gluten. I mentioned the antibodies attack healthy tissue. It may be in your gut or other areas like brain, thyroid, kidneys, or pancreas.

Let's look at a similar issue that occurs with prolonged exposure to gluten for sensitive individuals. Perfusion is a process where blood is sprayed into the brain much like a garden hose spray. With the wheat sensitive individual the spray is limited causing less blood and therefore less oxygen to the brain. One study showed that plaqueing in the brain as documented by using MRIs was reversed in several individuals with wheat allergies when they got off wheat for one year. Let me repeat that because it has such profound implications. For wheat sensitive patients with documented plaque in their brains, when they got off gluten, the plaqueing reversed and disappeared. This is the type of plaqueing that is found in Alzheimer's and multiple sclerosis as well as a host of other advanced neurological conditions.

How many people have reduced mental capacity because they have gluten/gliadin sensitivities? How many children or adults have ADD or ADHD? How many people with anxiety or depression are suffering because they don't have enough blood to get to their brain and get confused by the complexities of life? A lot of people and many are your patients.

Gluten is a big deal for your chronic patients or those who are presenting symptoms of unknown etiology. I have heard a number of clinicians over the years say that as many as 50% of chronic patients will do better if they remove wheat and dairy from their diets. As the research on gluten sensitivity continues, it's essential for any clinician to review the literature and keep an eye on new developments. I've included an article below by Dr. Tom O'Bryan and Dr. Ari Vojdani on the effects of gluten outside the colon. It's a great paper to print out for your files and doubting colleagues.

Thanks for reading this week's edition of the Tuesday Minute. Have a great week, and I'll see you next Tuesday.