Creating a More Effective Therapeutic Regimen Using Expanded Food Sensitivity Testing

By Chris D. Meletis, N.D.
January 2020

In treating patients, we have a large number of dietary supplements at our disposal and many of these are successfully incorporated into patient regimens. However, thanks to U.S. BioTek's new Food Sensitivities 208 Food Panel, I recently discovered that I was doing certain patients more harm than good by recommending supplements that had ingredients to which the patients reacted. I had also been recommending some "healthy" food options, unaware that my patients were intolerant to these food items. Previously, I had presumed that certain items were innocuous in terms of food sensitivities.

In this article, I'll discuss three brief case studies where identifying some surprising food sensitivities led to a world of difference in advancing patient wellness. I'll also provide guidance on which immunoglobulins to test for—IgG, IgG4, and/or IgA—and how I use the results from the 208 Food Sensitivity Panel to best formulate a food elimination diet for my patients.

Brief Review of the 208 Food Sensitivity Panel and Its Critical Role in Patients' Health

Before I started using U.S. BioTek's 208 Food Sensitivity Panel, I was mistakenly recommending botanicals and foods to my patients believing those items were health-promoting for everyone. I'll present several case studies to illustrate this later in this article. First, it's important to review some aspects of the 208 Food Panel and its application in clinical practice that are important to understanding the case studies.

Prior to the introduction of this new food panel, I was only able to test for sensitivity to 144 foods. This is still a good option for patients who do not have the budget for the 208 food panel, but the new 208 Food Panel allows for a more complete picture. For example, it includes items such as stevia, beets, kale, okra, dates, tangerines, flaxseed, and hemp.

Through this test, I can now also determine whether a patient is sensitive to a variety of botanicals commonly used as supplements including ginseng, licorice, oregano, and turmeric. It also captures the results for a broader range of nuts and seeds such as cola nut, chia seed, macadamia nuts, pistachios, and quinoa. Furthermore, it casts a wider net on types of seafood such as bass, catfish, and sea urchin and a greater variety of meat and poultry such as buffalo, duck, and venison. It also differentiates between brown rice and white rice.

IgG, IgA, or IgG4: Which Immunoglobulin to Test For?

With any of U.S. BioTek's food panels, clinicians have the option to choose whether to test for IgG, IgA, and/or IgG4. Testing for IgG, the most common antibody in patients' blood, is the panel I use for most of my patients. IgG sensitivities can lead to increased intestinal permeability that can result in digestive problems as well as systemic inflammation associated with depression.[1,2] IgA is generally tested in patients who have mucous membrane-related disorders. IgG4 is elevated in certain conditions such as eosinophilic esophagitis (which can masquerade as GERD/acid reflux), inflammatory bowel disease (IBD), irritable bowel syndrome (IBS), and autism, and increased levels of this immunoglobulin may be contributing to symptoms.[3-7]

Applying the Food Panel to Clinical Practice

Here is how I clinically implement the results of the food panel:

IgG scores: If levels register as a 0, I allow patients to eat the food freely. A score of I means the patient can eat the food once every four days. For a minimum of 4 to 6 months, I have my patients stop eating foods that register as a II, III, or IV.

IgA scores: These reactions are scored more strictly. If a food registers as 0.5 or above I ask my patients to avoid it completely.

IgG4 scores: Due to IgG4's potential contribution to the aforementioned conditions, I have my patients completely avoid any foods that have an elevated IgG4 reaction.

I immediately have my patients begin an elimination diet based on the test results while implementing a gut-supporting regimen that includes L-glutamine, collagen, probiotics, N-acetyl glucosamine (except in people sensitive to crustacea/shellfish/dust mites), and a broad plant-based digestive enzyme with DPP IV. I believe it's important to eliminate the offending foods while healing the gut, as these foods can lead to an inflammatory response that will interfere with healing.

Case Study 1: Eosinophilic Esophagitis Improves After Avoiding Spices Mistakenly Thought To Be Healthy

A patient of mine with eosinophilic esophagitis was diligently avoiding all the food sensitivities reported upon in the 96 Food Panel. However, this food elimination diet did not result in him achieving an optimal level of health. In other words, he was just surviving and not thriving. The 208 Food Sensitivity Panel revealed a possible reason for his lack of improvement. First, his IgG levels for turmeric registered high (upper III). This was problematic as I had prescribed him a turmeric supplement due to its known anti-inflammatory actions.

He was also avoiding the traditional American diet and eating more international foods seasoned with curry and ginger. Yet, the 208 Food Panel revealed his IgG4 levels to these foods were high. Curry powder also contains turmeric and as noted previously he had very high levels of IgG to turmeric. Furthermore, basil tested at 0.5 IgA, an indication of mucous membrane irritation, so I recommended eliminating it from the diet completely. Certain spices were essentially sabotaging this man's health. When he stopped consuming these spices, his health significantly improved.

Case Study 2: Oregano Does More Harm Than Good in SIBO Patient

I advised a patient with small intestinal bacterial overgrowth (SIBO) to use an oregano supplement due to that spice's known ability to inhibit bacteria. The patient had been on that supplement as part of a larger regimen without any improvement. I administered the 208 Food Sensitivity Panel, which determined that the patient exhibited a high IgG response to oregano (level II). Furthermore, the patient had been taking a ginger supplement due to its anti-inflammatory actions in many people. However, the 208 Food Panel indicated his IgG levels to ginger were high (level III).

Once the patient eliminated oregano and ginger from his supplement and dietary regimen, his global GI discomfort and SIBO symptoms dramatically improved. This indicates that the proverbial "spice of life" could actually be harmful and lead to pro-inflammatory responses.

Case Study 3: Family's Attempt to Eat a Healthy Diet Backfires When Using the Wrong Protein and Seed

After getting the results from a 96 Food Panel, two parents decided to eliminate offending foods from their children's diets. They wanted to change their children's mindset to one of healthy eating. The IgG test results indicated their children were sensitive to dairy and the parents sought an alternative. I recommended avoiding pea protein due to an intolerance. Whey was also out of the question due to the dairy sensitivity. Consequently, they replaced dairy with hemp protein and hemp milk.

I also recommended they increase their children's fiber intake in order to raise short-chain fatty acid levels. They asked if adding chia seeds and walnuts to the family's diet would be acceptable and I approved. However, even after making these changes, family members continued to experience problems such as runny noses, aches and pains, and IBS symptoms.

I then ordered the 208 Food Sensitivity Panel, which shed light on why the children were still experiencing symptoms. The test indicated a very high IgG sensitivity to hemp (upper III). The children also had a lower IgG sensitivity (upper I) to chia seeds and walnuts. As noted earlier in the article, daily consumption of a food that registers as a "I" can lead to problems, which is why I recommend food rotation by eating these foods every 4 days. Once the family stopped eating hemp and avoided chia seeds and walnuts, their symptoms improved. This demonstrates that even with healthy approaches there can be some land mines.

Why Symptom Improvement May Not Occur After Elimination of Offending Foods

It is important to note that there is a cross-reactivity between many seasonal allergens and food items. For example, individuals with an allergy to birch pollen can also react to such foods as celery, carrots, apple, peach, and parsley. People with a ragweed allergy are more likely to be sensitive to cantaloupe, zucchini, cucumber, honeydew, watermelon, and banana. I have written on this topic for U.S. BioTek and also hosted a webinar on cross-reactivity, which is available to view on-demand here.

Conclusion

It is critical to cast a wider net before formulating a patient's treatment regimen. Not all patients will have the budgetary means for a 208 Food Sensitivity Panel and in those patients the 96 Food Panel and 144 Food Panel both are meaningful. However, whenever possible, ordering the 208 Food Panel will yield the best results in achieving patient wellness.

References:

1. Karakula-Juchnowicz H, et al. The food-specific serum IgG reactivity in major depressive disorder patients, irritable bowel syndrome patients and healthy controls. Nutrients. 2018;10:548.

2. Tao R, et al. Chronic food-antigen specific IgG-mediated hypersensitivity reaction as a risk factor for adolescent depressive disorder. Genomics Proteomics Bioinformatics. 2019;17:183-9.

3. Wright BJ, Kulis M, Guo R, et al. Food-specific IgG4 is associated with eosinophilic esophagitis. J Allergy Clin Immunol. 2016 Oct;138(4):1190-2.

4. Enstrom A, Krakowiak P, Onore C, et al. Increased IgG4 levels in children with autism disorder. Brain Behav Immun. 2009 Mar;23(3):389-95.

5. Croonenberghs J, Wauters A, Devreese K, et al. Increased serum albumin, gamma globulin, immunoglobulin IgG, and IgG2 and IgG4 in autism. Psychol Med. 2002 Nov;32(8):1457-63.

6. Zar S, Benson MJ, Kumar D. Food-specific serum IgG4 and IgE titers to common food antigens in irritable bowel syndrome. Am J Gastroenterol. 2005 Jul;100(7):1550-7.

7. Zar S, Mincher L, Benson MJ, Kumar D. Food-specific IgG4 antibody-guided exclusion diet improves symptoms and rectal compliance in irritable bowel syndrome. Scand J Gastroenterol. 2005 Jul;40(7):800-7.