Hidden Food Sensitivities: A Common Cause of Many Illnesses

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Two of the authors (JAJ, SN) have previously reported on food sensitivities as being an important diagnostic tool.[1,2] At The Center we use the cytotoxic food sensitivity test first described by Black[3] and later modified by Bryant and Bryant.[4,5] Hypersensitive (or allergic) reactions come in four types. Most people know when they have a Type 1 IgE mediated hypersensitivity reaction. In the worse case scenario, a patient may die from anaphylactic shock if not treated with epinephrine.

It is the hidden food allergies of the delayed type and usually IgG mediated (which some refer to as food intolerance), that make a lot of food associated medical problems difficult to diagnose. The IgG mediated sensitivities may not appear immediately but hours later and may vary with exposure.[6] The response is similar to reaching a drug threshold level, or pharmacological response, which may take five to seven doses to reach an effective level. We have reported on food allergies in patients with headaches, joint and muscle pain, depression and other mental illness. Symptoms vary from person to person and are usually dose dependent.

The eight foods listed by the FDA that are most often implicated in serious allergic responses (Type 1 reactions) are milk, eggs, fish, wheat, tree nuts, legumes (peanuts and soybeans), crustaceans and mollusks.[6] In addition to the food antigens, food additives are also known to cause allergic reactions. In a previous report on a panel of 90 antigens and additives, we found the top ten reactive food antigens to be onion, whole egg, grape/raisin, vanilla, corn, tea, hops, apple, navy bean, and white potato. The top ten additives were BHT, NutraSweet®,

BHA, Sodium Bisulfite, Dextrose, MSG, Chlorine, Fluorine, Sodium Nitrate and Sodium Nitrite.[2]

The BioCenter Laboratory recently completed its semi-annual health fair. This program is designed to allow people who are interested in their nutritional status have blood and urine testing performed as various health panels (see www.brightspot.org for more information).

A new panel added this was the "Inflammation Panel," designed to take advantage of the importance of checking for inflammation as described in Dr. Ronald Hunninghake's new book.[7]

The panel includes 22 common foods antigens and two additive antigens (Table 1). The description of the test, reactivity grading and reporting has been discussed before.[1,2]

Essentially, 70 microliters of the patient's buffy coat blood is added to a sterile glass slide containing purified antigen in an inert Vaseline ring. The antigen and blood are cover slipped, incubated at room temperature for two hours then read visually under a microscope. One of the authors (SN) has over 30 years of experience performing this test. The results are graded as negative, plus 1, plus 2, plus 3, and plus 4. A negative control and positive control are run with each test. The patient must be fasting (no brushing of teeth, coffee, tea, etc). They may only have purified or distilled water to drink.

Results from forty-nine participants are shown in **Table 1**, (p.28). Thirty-one of the participants (63%) were female while

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eighteen (37%) were male. The participant with the fewest positive antigens was a male with only 6 (25%) positives out of 24 antigens. The participants with the largest number of positives were one female and one male with 18 (75%) positive antigens.

The antigen with the fewest positive reactions was cow's milk with 5 out of 49 (10%), while the antigen with the greatest number of positive reactions was corn with 36 out of 49 (73%).

Although a complete comparison cannot be made to the results in our previous article in 1995[2] (90 antigens versus 24 antigens), there was some consistency in the ranking of positive antigen reactions. In the current study, corn showed the most positive results (73%, Table 1), followed by tomato(#2, 71%), vanilla (#3, 69%), oat and onion (#4, both with 63% positives), white potato and coffee (#5, both with 59%), egg-whole, NutraSweet®, and soybean and baker's yeast (#6, all with 57%). In our 1995 study, the antigens with the most positive results ranked as onion (#1), whole egg (#2), grape/raisin (#3), corn and vanilla (tied at #4), tea and hops (#5), apple (#6), navy bean and white potato (#7). Cow's milk showed least sensitivity with only10 percent positive results. This was similar to the results

Table 1. Food cytotoxic results from 49 participants.

	Reaction Result					Number of 49 Participants	
Antigen	**0**	**1+**	**2+**	**3+**	**4+**	**Positive(% Pos;%Neg)**	**Ranking**
Banana (number)	27	5	13	4	0_	22 (45%+; 55%-)	#9
Chicken	34	3	11	1	0	15 (31%+; 69%-)	
Chocolate	23	7	16	2	1	26 (53%+; 47%-)	#8
Coffee	20	8	12	9	0	29 (59%+; 41%-)	#5
Corn	13	14	14	8	0	36 (73%+; 27%-)	#1
Egg, Whole	21	4	18	6	0	28 (57%+; 43%-)	#6
Flour, White	37	4	7	1	0	12 (24%+; 76%-)	
Grape, Seedless	29	4	12	4	0	20 (41%+; 59%-)	#10
Milk, Cow	44	2	3	0	0	5 (10%+; 90%-)	
MSG	22	8	14	5	0	27 (55%+; 45%-)	#7
Nutrasweet®	21	7	16	5	0	28 (57%+; 43%-)	#6
Oat	17	6	12	13	0	31 (63%+; 37%-)	#4
Onion	18	7	14	10	0	31 (63%+; 37%-)	#4
Orange	33	6	8	2	0	16 (33%+; 67%-)	
Pineapple	31	7	9	2	0	18 (37%+; 63%-)	
Potato, White	20	5	17	7	0	29 (59%+; 41%-)	#5
Rice	23	7	15	4	0	26 (53%+; 47%-)	#8
Soybean	21	7	14	7	0	28 (57%+; 43%-)	#6
Sugar Cane	27	6	15	1	0	22 (45%+; 55%-)	#9
Tea	33	2	11	3	0	16 (33%+; 67%-)	
Tomato	14	16	13	6	0	35 (71%+; 29%-)	#2
Vanilla	15	4	22	8	0	34 (69%+; 31%-)	#3
Whole Wheat	35	6	7	1	0	14 (29%+; 71%-)	
Yeast, Baker	21	6	12	10	0	28 (57%+; 43%-)	#6

Table 2. Comparison of food cytotoxic results between father (53 years) and daughter (13 years).

		Reaction Result				
Antigen		**0**	**1**	**2**	**3**	**4**
Banana	Daughter			X		
	Father			X		
Chicken	Daughter	X				
	Father	X				
Chocolate	Daughter				X	
	Father	X				
Coffee	Daughter	X				
	Father		X			
Corn	Daughter			X		
	Father				X	
Egg, Whole	Daughter	X				
	Father			X		
Flour, White	Daughter				X	
	Father	X				
Grape, Seedless	Daughter		X			
	Father	X				
Milk, Cow	Daughter	X				
	Father	X				
MSG	Daughter		X			
	Father			X		
Nutrasweet®	Daughter				X	
	Father	X				
Oat	Daughter		X			
	Father				X	
Onion	Daughter			X		
	Father			X		
Orange	Daughter		X			
	Father	X				
Pineapple	Daughter	X				
	Father			X		
Potato, White	Daughter			X		
	Father				X	
Rice	Daughter			X		
	Father				X	
Soybean	Daughter				X	
	Father	X				
Sugar Cane	Daughter			X		
	Father			X		
Tea	Daughter	X				
	Father	X				
Tomato	Daughter	X				
	Father			X		
Vanilla	Daughter			X		
	Father			X		
Wheat, Whole	Daughter			X		
	Father	X				
Yeast, Baker	Daughter				X	
	Father				X	

obtained in 1995. It should be pointed out that 90 percent of the participants were adults, and this test does not detect lactose intolerance.

Two of the participants were a 52-year old father and his 13-year old daughter. Their results are shown in **Table 2.** (p.29) The father and daughter showed very similar sensitivities. Both were positive to 14 out of 24 antigens (58%). Both matched in 12 antigens. Both were positive to the same eight antigens and negative to the same four antigens. The mother was not tested; however, with atopic children it has been shown that if both parents have allergies, about 50% of the children will have a greater risk for atopy. If one parent has allergies, about 30% of the children will have atopy. If there are no allergies in both parents, about 13% of the children will have atopy.[8] In this case, our data was consistent with published data in that the father and daughter matched in 33% positive antigens.

Another note of interest is that the father complained of chronic joint and muscle pain. He was 3+ to potatoes and 2+ to tomatoes. They are members of the nightshade plants which have been associated with arthritis and joint and muscle pain.[1,2] The Center physicians have used the cytotoxic food sensitivity test for thirty years on patients with complaints of headache, fibromyalgia, joint and muscle pain, gastro-intestinal problems, some mental dysperceptions, chronic fatigue and obesity.[9-12] They continue to use it with good success today. Additional information concerning this and other tests may be obtained from our web site, www.biocenterlab.org.

References

1. Jackson JA, Riordan, HD, Neathery, S: Comparison the cytotoxic food sensitivity test to the enzyme RAST/EAST test. *Amer Clin Lab,* 1991; 3: 20-21.
2. Jackson JA, Riordan, HD, Neathery S, Guinn, C: The cytotoxic food sensitive test: an important diagnostic tool. *J Orthomol Med,* 1995; 10,4: 60-61.
3. Black AP: A new diagnostic method in allergy disease. *Pediatrics,* 1956; 17: 716-724.
4. Bryant WTK, Bryant M: The application of in vitro cytotoxic reactions to clinical diagnosis of food allergies. *Laryngscope,* 1960; 70: 810-824.
5. Bryant WTK, Bryant M: Cytotoxic reactions in the diagnosis of food allergies. *Otolaryngol Clinic of N Amer,* 1971; 4: 523-534.
6. Food allergen awareness: an FDA priority, *Food Safety Magazine,* March/April, 2001; 14-15.
7. Hunninghake RE: Basic health publications user's guide to inflammation, arthritis and aging. *Basic Health publications, Inc,* Laguna Beach, Ca., 2005.
8. Rocklin RE: Clinical and immunologic aspects of allergen specific immunotherapy in Patients with seasonal allergic rhinitis and or allergic asthma. *J Allergy Clin Immunol,* 1983, 72: 323.
9. Jackson JA, Riordan HD, Hunninghake RE, Lewis RL: From a violent 17-year old male to a normal young man. *J Orthomol Med,* 2000; 16(2): 18-20.
10. Jackson JA, Huninghake RE, Riordan HD, Doran, LD: Agitation, allergies and attention deficit disorder in an 11-year old boy. *J Orthomol Med,* 1995; 10(3&4): 130.
11. Hunninghake R, Jackson JA, Riordan HD: Migraine headaches and food sensitivities in a child. *J Orthomol Med,* 1992; 7(1): 16.
12. Jackson JA, Riordan HD, Hunninghake RE, Neathery S: Joint and muscle pain, various arthritic conditions and food sensitivities. *J Orthomol Med,* 1998; 13(3): 168-172.