BioHealth Laboratory’s
Clinical Resources
CASE STUDY

Secretory IgA (#310 & HPA + SIgA Profiles)

Introduction
Michael presents with a myriad of health complaints including fatigue, periodic weakness with exertion from a long history of asthma, chronic sinus and nasal congestion and a tendency to frequent infections such as colds, bronchitis and sinus infections. He has worked with a number of conventional doctors including an Ear, Nose and Throat (ENT) specialist and his primary care physician who have managed his asthma with medications. Two years ago he worked with a naturopath who placed him on a detoxification program and removed gluten from his diet. He admits that he does feel better abstaining from gluten-containing foods and felt better while following the detoxification program. He remarked that he felt better on the detox program than he had in years.

Patient Complaints
- Fatigue, particularly in the afternoons.
- Constant pressure in sinuses below his eyes, but worse with change of seasons.
- Cough when consumes dairy or when there is a high pollen count.
- Frequent illness, i.e. colds, bronchitis. Also gets 2 to 3 sinus infections per year.
- Asthma controlled by medications.

Patient Description
- Michael is a 24 year-old Caucasian male, 6 feet 3 inches tall, 205 lbs, BMI = 12.
- Michael is engaged to be married.
- He works as a bartender at a restaurant/brewery.
- Michael is an avid cyclist and hiking enthusiast, but is often limited by his respiratory and sinus problems.
- His prior health concerns reveal the onset of asthma around 8 years of age. He was hospitalized twice during his youth, once as a teenager with a severe asthma attack. His sinus and nasal congestion problems developed over a number of years and often fluctuated depending on the type of environment he was living in. His father was in the military so his family often moved every 2 to 3 years. His asthma is better overall in a dry climate.
- Michael admits to frequent antibiotic use for respiratory infections.

History of Present Illness
- His course of illness hasn’t changed significantly over the past few years, but he does feel like his ability to fight off ‘colds’ and subsequent respiratory problems is becoming worse.
- He has recently removed gluten from his diet again over the past 3 weeks. He has also stopped regularly drinking beer even though working as a bartender for a microbrewery. However, he cannot stop altogether as part of his job description is to sample new beers. He does feel more energy overall with cessation of gluten-containing foods.

Past Medical History
- Frequent use of antibiotics
- Prior hospitalizations for asthma (when child and teenager)
- No surgeries, illegal drug use or smoking
- Various asthma inhalers. Currently, on a prn Proventil inhaler and oral Singularair

Dietary History
- Breakfast – coffee and cream, yogurt and nuts. Gluten-free toast.
- Lunch – salad, chicken, hamburger (without the bun)
- Dinner – beef, chicken or pork, mixed vegetables.
- Snacks/Desserts – apple and almond butter, gluten-free cereal
- Beverages – coffee (one cup daily), water, Kombucha
Social History
- No smoking or drug use
- Beer sampler at work

Physical Exam/Observations
- Alert, good memory, pleasant demeanor
- No abdominal pain or distention
- Lean and fit
- Respiratory sounds in all 4 quadrants clear, but with mild exhalation wheeze
- Frontal and maxillary sinuses not painful to palpation
- Tongue with white coating, particularly posterior

Previous Test Results
- Blood Tests from PCP:
  - H. pylori IgG – negative
  - Comprehensive Metabolic Profile – normal
  - Liver enzymes – normal
  - Complete Blood Count w/Differential – elevated eosinophils
  - Gliadin - positive
  - Transglutaminase - negative
- Inhalant IgE Panel:
  - Positive IgE: ragweed, cat dander, dust mites, Bermuda grass

General Impressions
Michael's symptoms of sinus and nasal congestion, respiratory distress, particularly with seasonal changes and heavy exertion, along with fatigue on exertion are all characteristic of IgE mediated allergies and asthma. The chronic sinus issues point to a deeper problem of mucosal immune deficiency contributing to digestive system imbalances including yeast overgrowth from long-standing antibiotic use.

It is certainly possible that HPA dysfunction could be contributing to his immune issues along with chronic infections putting stress on the mucosal immune system. One thing that was never checked in Michael is total immunoglobulin output revealing the possibility of lower systemic production of IgA which is a common contributor to poor respiratory and overall immune function.

The removal of gluten from his diet and subsequent benefits is further evidence that certain foods have been a trigger for some of his issues. This sensitivity is also confirmed by the previous blood test that was positive for gliadin IgG.

Initial Plan of Action
Michael will be directed to perform the HPA Stress Profile with CAR/Secretory IgA (#205-CAR-S) to assess total secretory IgA output, along with measurements of sex hormones, DHEA-S, melatonin and cortisol. Also, a Metabolic Assessment Profile (#101) will be performed to assess oxidative stress, liver function and protein digestion.

In addition, it will be advantageous to rule out digestive system pathogens such as bacterial infections and parasites through the GI Screen with Helicobacter pylori (#401H). His long-standing use of antibiotics is known to disrupt intestinal flora and can lead to opportunistic bacteria and yeast. Also, Helicobacter pylori and chronic parasites can be a drain on mucosal immune function over time.

It is not uncommon for individuals with chronic sinus and respiratory issues to have low Secretory IgA production and become more susceptible to inflammation and weakened immunity against common pathogens.

He will also be instructed to continue his gluten-free diet and to start supplementation with essential fatty acids, antioxidants, along with a balanced vitamin and mineral supplement.

Additional BioHealth Lab Testing
- 205-CAR
- 401H
- 101