

CASE 3 – Carbohydrate Intolerant

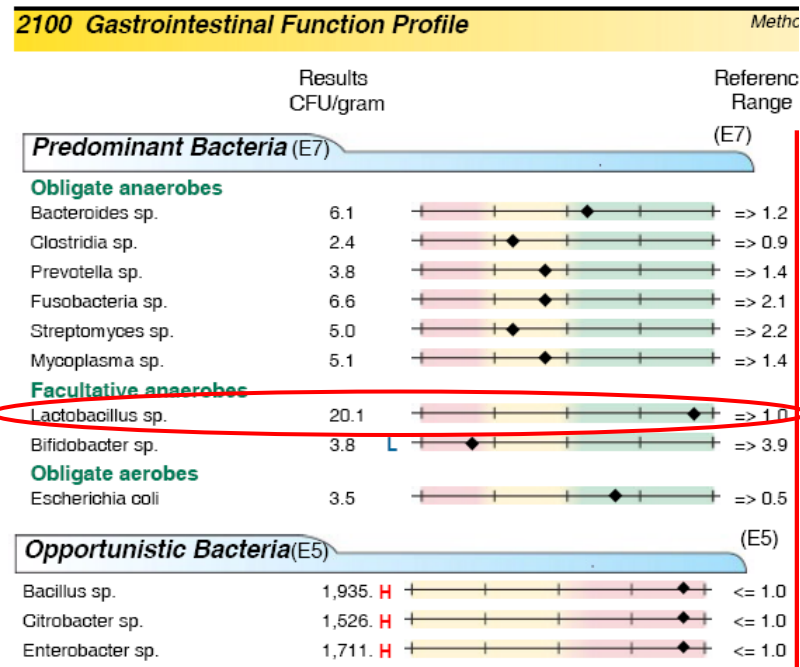
This 26 y/o female presented with severe carbohydrate intolerance—including gas, bloating, intense upper GI pain dysglycemia and mood swings. She reported severe vaginal candidiasis associated with sugar intake and amenorrhea for the past year. She has gained 60lb of body weight over past few years and she is unable to lose weight (currently 190 lbs, formerly 130 lbs).

Past medical history: adult: ACTH-secreting pituitary adenoma developed Cushing disease. Adenectomy x 1year ago. History of anorexia and binge eating, use of prescription diet pills. Childhood: colitis. Regular use of antibiotics.

Current treatment (before GIFX): agave juice fast resulted in greatly reduced GI pain and she is starting to lose some weight. Other interventions have stimulated menstruation, although it is irregular, generally occurring about every other month. Numerous supplements and diets- including low carbohydrate- have been intolerant to this patient.

Patient has recently submitted for a full GI endoscopy- results pending.

Findings:



Total of all “Predominant Bacteria”
= 5.0 x 10⁸

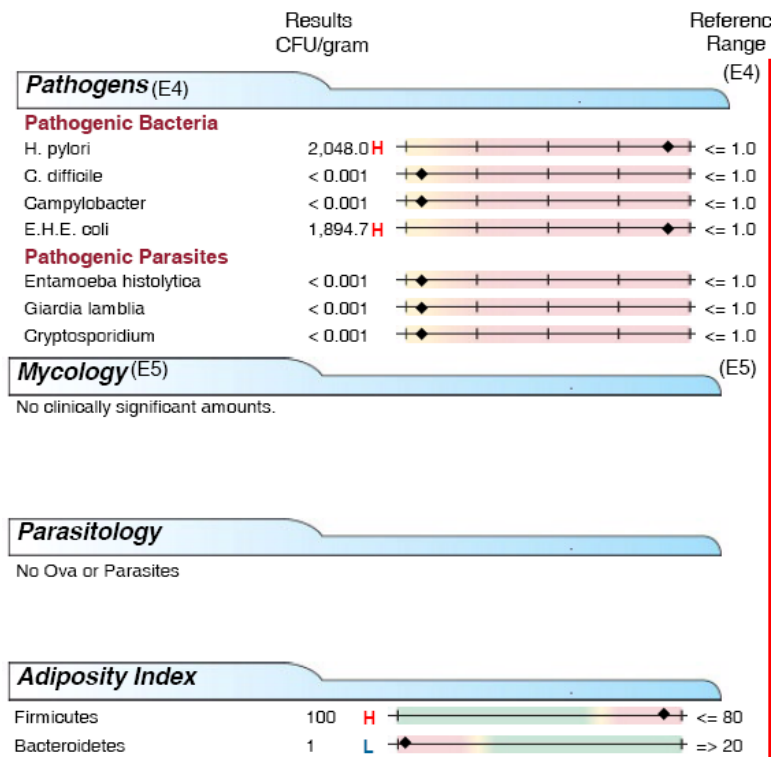
Sum of three Opportunistic Bacteria
= 5.2 x 10⁸

The results show a severe, multiple genus colonic bacterial overgrowth. The three genera of opportunistic organisms are present at numbers exceeding all of the normal predominant genera measured by the assay. This is in spite of grossly high levels of Lactobacillus accompanied by suppression of Bifidobacter sp. This patient has a severe colonic bacterial imbalance of the type that may now be seen from the perspective of the full magnitude of normal bacterial balance disturbance. As therapy proceeds, the quantitative results will allow progressive inspection of how successful each step is toward the goal of bring down the opportunistic numbers and restoring more normal numbers of both aerobic and anaerobic Bifidobacter sp.

With this picture in mind, we can go on to inspect for pathogens and other signs of imbalance.

2100 Gastrointestinal Function Profile

Meth

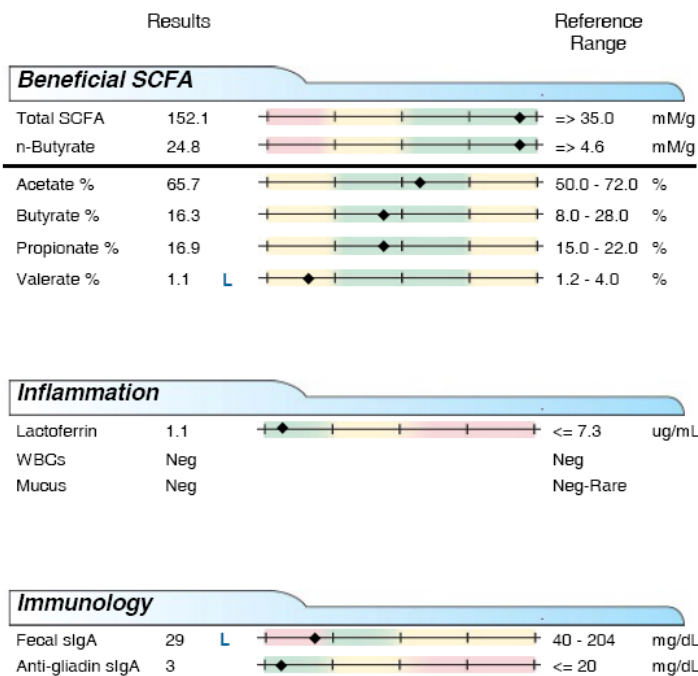


The bacterial situation is amplified by finding very high levels of H. pylori and Enterohemorrhagic E. Coli, two species that are known to elaborate toxic products. With the history in this case, the data provide ample evidence of intestinal bacterial overgrowth that needs to be brought under control. The reported symptoms of vaginal yeast are not accompanied by detection of fecal yeast. Possibly, urinary excretion of bacterial toxins is impairing vaginal immune suppression of yeast.

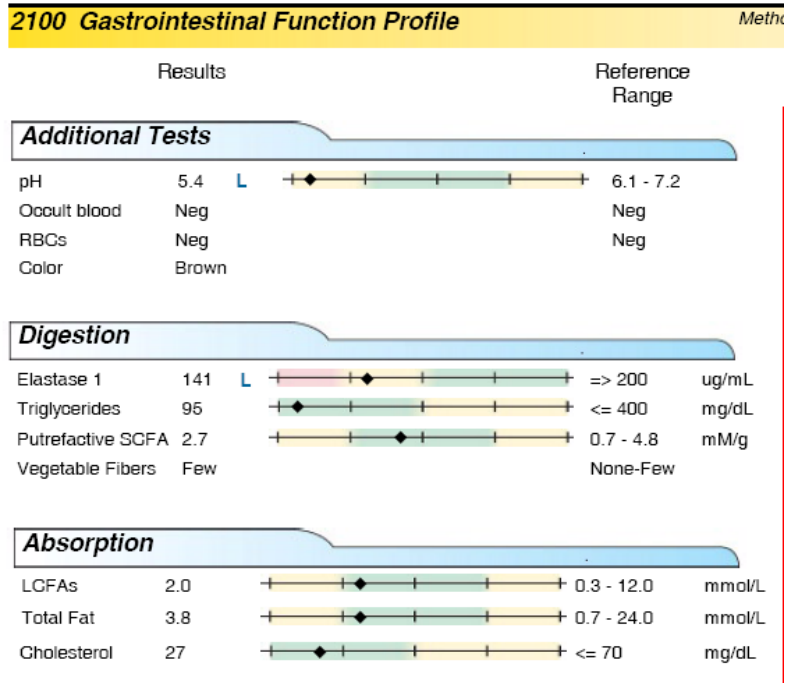
Note the extreme imbalance in the Adiposity Index that greatly restricts weight loss because of increased caloric yield from dietary caloric sources. Successful therapy should focus on raising Bifidobacter levels since Lactobacilli are among the members of the Firmicutes phylum, and Lactobacilli are currently strongly elevated.

2100 Gastrointestinal Function Profile

Meth



The low valerate shows that the opportunists are not valerate producers, and that they have suppressed normal species that do make this SCFA. The low Fecal sIgA is no surprise, but it also provides a good record for comparison as follow up test is done to monitor progress with the immune barrier competence that should improve as bacterial populations become more favorable to healthy GALT function.



The bacterial overgrowth in this case appears to be so intense that the rate of production of organic acid metabolic products is causing a lowering of fecal pH. Pancreatic digestive function impairment is revealed by the low Elastase 1 level.

Microbial Sensitivity Profile	Microbial Sensitivity Profile	Microbial Sensitivity Profile
Bacillus sp.	Enterobacter sp.	Citrobacter sp.
Sensitive	Sensitive	Sensitive
Pharmaceuticals Amoxicillin S Ampicillin S Augmentin S Cefpodoxime S Cefuroxime S Ciprofloxacin S Clindamycin S Erythromycin S Levofloxacin S Penicillin S Potassium Clavula S Sulfamethoxazole S Tetracyclin S Trimeth-Sulfa S	Pharmaceuticals Amoxicillin S Ampicillin S Augmentin S Cefuroxime S Ciprofloxacin S Clindamycin S Erythromycin S Levofloxacin S Penicillin S Potassium Clavula S Sulfamethoxazole S Tetracyclin S Trimeth-Sulfa S	Pharmaceuticals Erythromycin S Levofloxacin S Penicillin S Potassium Clavula S Sulfamethoxazole S Tetracyclin S Trimeth-Sulfa S Amoxicillin S Ampicillin S Augmentin S Cefuroxime S Ciprofloxacin S Clindamycin S
Botanicals Aliin S Berberine S Black walnut S Caprylic acid (Octanoic) S Goldenseal root S Grapefruit seed extract S	Botanicals Aliin S Berberine S Black walnut S Caprylic acid (Octanoic) S Goldenseal root S Grapefruit seed extract S	Botanicals Aliin S Berberine S Black walnut S Caprylic acid (Octanoic) S Goldenseal root S Grapefruit seed extract S

Quick inspection of the sensitivity report allows us to see that botanicals and pharmaceuticals like Amoxicillin may answer for opportunistic as well as pathogenic *H. pylori*. Quinoline antibiotics may be needed to bring the *E.H.E. coli* under control. If so, we know to watch follow up GI Effects profiles for the appearance of *K. oxytoca* that might exacerbate recovery with appearance of increased diarrheal episodes.

Digestive intervention with pancreatic enzymes and a trial of betaine hydrochloride is suggested. This patient can be encouraged to look forward to better success with weight control as the digestive and bacterial situation is normalized. She can renew her efforts toward dietary balance and caloric restriction with expectation of success. Those efforts will hasten the improvement in the Adiposity Index. This effect may be due to caloric restriction causing growth of species that have more varied energy substrate requirements. Under reduced energy intake, they more successfully compete to establish permanent colonies, generating improved microbial diversity.