

Gut Review Case Assignments

(Case #3 Answers)

CASE #3, STEP 1:

Answer:

The Organix profile is consistent with microbial overgrowth, due to the elevated hippurate with low benzoate in the presence of other elevated markers for microbial overgrowth. Remember that hippurate is one of the most abundant compounds in urine, so if hippurate alone is elevated, that would not be reason enough to suspect microbial overgrowth.

The SIBO breath test shows essentially 0 across all times points. This could either be interpreted as likely SIBO due to hydrogen sulfide, given the markers for dysbiosis on the Organix profile and his symptoms, or it may be interpreted as normal, and the elevated markers on the Organix profile could reflect overgrowth in the proximal colon.

The stool test shows borderline low levels of beneficial bacteria, with a correspondingly low butyrate. This is not entirely unexpected given he has been self-treating by following a low-FODMAP diet for several months. There is mild yeast overgrowth with “few” yeast seen at microscopy. This is also not entirely unexpected when low levels of beneficial bacteria are present. Secretory IgA is also low and likely related to stress (and his subsequently identified mercury toxicity).

Treatment: Core herbal antimicrobial protocol recommended for 60 days.

CASE #3, STEP 2:

Answer:

There is some change in the markers of microbial overgrowth seen on the Organix profile, but again with the high hippurate along with two other markers of dysbiosis, and with the patient reporting little overall change in his symptoms, this is most consistent with microbial overgrowth (either small intestinal overgrowth or proximal colon).

Treatment: An additional 60 days of the herbal antimicrobial treatment was recommended.

CASE #3, STEP 3:

Answer:

Some improvement but hydroxybenzoate is quite elevated. Remember that this compound is a product of bacterial metabolism of polyphenols and tyrosine and is not an expected product of normal human cellular metabolism. So despite improvement in several other markers, this does suggest at least some degree of ongoing dysbiosis. D-arabinitol high normal, but given his initial stool test showing mild yeast overgrowth, this likely does reflect some degree of ongoing mild yeast overgrowth. (Of note, this was prior to routine use of A-FNG when yeast overgrowth was detected.)

Treatment: Despite a relatively long course of herbal antimicrobials, we saw limited improvement in symptoms. A course of rifaximin was prescribed to address the ongoing bacterial overgrowth and additional testing was performed to determine why GI issues persisted despite treatment. While rifaximin provided some symptom relief, this patient was found to be frankly mercury toxic, which often seems to make treatment of GI microbial imbalances more difficult, and he is currently undergoing metal detoxification.