Q&A with Dr. Steven Sandberg-Lewis

Cyndi Athmanathan: Okay, so our first question is from Dorothee. And she writes: "I was positive for Candida and OAT, and treated with nystatin for three months. I then re-tested in OAT, and now I was negative for Candida, but another fungus came up. Tartaric was positive, but arabinose was negative…?"

Dr. Steven Sandberg-Lewis: Arabinose, yeah.

Cyndi Athmanathan: "…arabinose. What should I do now?"

Dr. Steven Sandberg-Lewis: So this is question about being tested for yeast, organic acids in the urine that are markers that let us know if excessive yeast is present somewhere in the body. It doesn't say exactly where. And tartaric versus arabinose, those are just different indicators that there's more yeast activity producing these substances.

There are a lot of factors that can cause yeast to grow excessively. Yeast is normally present, especially *Candida albicans.* It's normally present in trace amounts in the digestive tract. The concern is when it over grows and produces more of its mycotoxins and causes more symptoms.

So, if you have treatment that's effective for a yeast overgrowth, and then it just comes back (just like SIBO often does)—they're raking leaves with big machines outside of my house. If you can hear that, I apologize for that—then you have to consider what the underlying causes are. And you might have to deal with some of those.

Those might be taking steroid medications like estrogen, progesterone, testosterone—especially estrogen—and prednisone, another adrenal steroids. It could be due to producing too much steroid such as in Cushing's disease. But a lot of people have excess cortisol production from the adrenals which suppresses immunity, including your digestive tract's immunity to yeast and fungus.

So, if your body is producing too much cortisol and not enough of the sister hormone called DHEA, your immune system for yeast will be suppressed. That's an important thing to check if you get recurrent yeast after treatment.

Certainly, antibiotics, high carbohydrate diets, drinking alcohol regularly, these are all things that can also cause yeast to overgrow.

And diabetes or metabolic syndrome, which is when insulin in the body isn't functioning as well as it should, insulin is necessary to get sugar into the cells of the body so they can turn it into energy and do other important tasks. If the insulin isn't functioning properly (which is a very common problem in at least 25% of the population), then the sugar will build up in the blood and other tissues. And it will feed yeast among other things. It has lots of other negative side effects.

So, having a hemoglobin A1C blood test, having a fasting and 1-hour or 2-hour post-meal insulin level drawn, those are sometimes really important and common problems will show up if that's tested and those levels are high.

In addition, there's this theory from Dr. Klinghardt that heavy metal burden will stimulate yeast to overgrow. And it's just a side effect, a symptom of the heavy metal burden.

So, those are some of the things you have to think about when yeast gets treated effectively, and then it just comes right back. Those have to be considered.

Cyndi Athmanathan: Okay, great! Next question by Djilpak (I think is how you pronounce his name): "Given there are adverse side effects, including the possibility of SIBO, from prolonged use of PPI drugs, are there any proven naturopathic options for treating Barrett's esophagus and chronic GERD?"

[05:01]

Dr. Steven Sandberg-Lewis: I'm currently writing a book on this topic called *Getting Real About Reflux*. And Barrett's esophagus and chronic reflux esophagitis, these are long-term complications of having reflux. And Barrett's esophagus, just to orient people, is when the cells lining the lower esophagus shift to a different cell type. It's the body's best attempt to try to deal with that chronic irritation from the acid and other stomach enzymes and even pancreatic enzymes coming up into the esophagus.

So, the Barrett's in itself isn't a real problem. It's when cells within those altered cells, those areas of abnormal tissue, when they start to become dysplastic—which means they're moving towards cancer of the esophagus. And that's what we're trying to prevent with Barrett's.

There's a short segment of Barrett's when it's smaller than 3 cm. and there's a long segment. And the long segment is thought to be possibly or likely to progress into cancer of the esophagus. So, the short segment, usually, it's easier; long segment just means there's more to deal with.

But what can you do about it? Well, the old-school idea was that, if you just suppress the acid with proton pump inhibitors, that would reduce your risk of getting esophageal cancer from Barrett's. It turns out that with all the research and meta-analysis (where they put lots of different research studies together and looked at them), it appears that it's very mixed. In other words, some studies show that taking a proton pump inhibitor might reduce the risk of getting esophageal cancer from Barrett's; and others show it increases the risk. And the biggest study ever done in Denmark showed that the better, more acidulous people were at taking their proton pump inhibitors for Barrett's, the more likely they were to develop severe dysplasia or cancer of the esophagus.

So, the American College of Gastroenterology a couple of years ago came out with a new statement of proton pump inhibitors and Barrett's. And they said that the only reason proton pump inhibitors should be prescribed for Barrett's is if it relieves symptoms. It shouldn't be done as a drug treatment to try to prevent cancer because the studies show that it might actually increase the risk of cancer. And that makes sense that they changed the rules.

So, if your doctor is still saying, "You gotta take proton pump inhibitors or you're going to get cancer from your Barrett's," I'm not sure why they're not listening to the new guidelines. But the new guidelines make a lot of sense to me.

Hydrogen, H2, histamine-2 receptor antagonists like ranitidine, Zantac, cimetidine, those older drugs, they don't have as much of a risk as a proton pump inhibitor. So if I have a patient that I really need to treat that way, I will often use that kind of medication or natural treatments.

The main thing is if you're trying to treat Barrett's, you have to treat the cause just like everything else we've been talking about. You have to treat the cause. So, the cause is the reflux. And that's what many of my webinars are about, all the underlying causes of reflux. It could be a hiatal hernia. It could be that the person has increased intra-abdominal pressure from being overweight or being pregnant or chronic breath-holding. It could be that they have abnormal

motility of their esophagus, and it doesn't move things down properly. It could be that they actually have hypochlorhydria and don't make enough acid, and that's causing changes in the tone of the lower esophageal sphincter.

It's kind of a big topic what causes reflux. But I guess the simple answer here would be the Barrett's is caused by chronic reflux. If you're going to treat it, and not just give something that is a drug to get rid of symptoms, you have to treat the cause.

[10:16]

Dr. Steven Sandberg-Lewis: And that's why I'm writing that book, to explain all the causes and natural treatments. But it really depends what all the factors are.

And then, of course, there's the lower esophageal sphincter tone with anything that's affecting it. I have some patients where we can't fix that; I have other patients where we can. So it really depends on all those factors.

But the bottom line is, no, proton pump inhibitors are not a way to prevent cancer, esophageal cancer, from Barrett's. It's not a proven treatment, so it's not recommended anymore… unless it's just being used to reduce symptoms. But there are lots of other ways to reduce symptoms. And it really depends!

Do you make too much acid? If you don't, a PPI makes no sense. H2 receptor antagonists makes no sense. And whether it's treating SIBO to reduce the pressure in the abdomen that's pushing things up, whether it's having visceral manipulation to fix a hiatal hernia, whether it's using demulcents to coat the tissues and protect them and try to improve the production of mucus and motility in the esophagus, those are all important things, and there are many factors that may have to be addressed.

Next question?

Cyndi Athmanathan: Okay! So Del writes in: "What is the root cause of prostate inflammation? Can this be treated using herbal remedies?"

Dr. Steven Sandberg-Lewis: Yeah! So, it's a good thing that I was in general practice for 19 years because I'm not just totally focused on the GI tract. I mean, I am now. But I've looked into many other body systems and taught about other body systems.

Prostatic inflammation, two main types. There's prostatitis which is generally an infection of the prostate. And that can happen in younger men and also in older men. There are different organisms involved depending on the age.

But then, there's the more common issue which is benign prostatic hyperplasia (BPH). And that is more of an age-related thickening of the prostate. And unfortunately, because the prostate surrounds part of the urethra that drains the bladder, that thickening or enlargement of the prostate can really affect urination.

And there are surgeries for that. There's a new surgical treatment called *Urolift* where they just put a little stint in there that keeps it open. It's totally symptomatic, but it's something that shows promise for men that don't respond to natural treatments.

Natural treatments usually involve things that are 5-alpha reductase inhibitors such as saw palmetto or *Pygeum africanum*. These are herbs that reduce the conversion of testosterone to a metabolite called dihydrotestosterone or DHT.

DHT is thought to be the big culprit—there are other factors, but a big culprit—in hair loss (male pattern hair loss) and enlarged prostate. So, there are drug treatments like Propecia that block 5-alpha reductase. And then, there are herbal ones such as I've mentioned, saw palmetto and *Pygeum africanum*.

Other nutrients can be helpful for the prostate as well—zinc, bee pollen can be helpful (and in some studies, they've been shown to be really helpful), and then certain amino acids in combination. There are three amino acids that are often prescribed in supplements for the prostate that can reduce the size of the prostate. And those are some of the more common treatments.

[15:13]

Dr. Steven Sandberg-Lewis: There are some exercises as well that help to drain the prostate and sort of *milk* it in a way. Those are hard to explain in a video like this, but you can read about them. There's a yoga exercise called the *cow's head* that is very specific for the prostate. And depending on your flexibility, if you can do that one, that may be really helpful as well.

Next?

Oh, I forgot to mention… so chronic yeast overgrowth, which we've discussed earlier, can also be a cause of recurrent prostate problems.

And in some men, it's actually due to excess estrogen as well. Estrogen seems to help the growth of the prostate, along with the dihydrotestosterone if they're both elevated. So there's some thought that pork products, beer (I think those are the main ones) will really tend to raise estrogen. I think it's the hops in the beer that tends to raise estrogen because it has a natural estrogenic effect. So those are things to consider as well.

Cyndi Athmanathan: Okay! So Joan asks: "What is the cause of feeling like you have a rock in your stomach right after drinking water?"

Dr. Steven Sandberg-Lewis: Yeah! So, that's an interesting symptom. I've ran into that with some people. It's not real common, but it can happen. People say, "I drink water and it hurts" or "it feels heavy" or "It doesn't feel like water, it feels like a rock."

There are some homeopathic remedies that are very specific for that. One is homeopathic phosphorus. It's a remedy that is sometimes used for people who feel like drinking water just makes them feel so full. There are other factors. You don't usually give a homeopathic remedy just for one symptom. But if you have a homeopathic doctor or a naturopathic doctor who uses homeopathy, you could ask about that.

In addition, the remedy pulsatilla, which is made from passion flower, it's a remedy that is used for what people describe as feeling like there's a stone in the stomach—so a rock, a stone, pretty similar.

So, you could look at the homeopathic picture, so to speak, the full definition of what these remedies are used for, pulsatilla and phosphorus. And you might find that these are over-the-counter things. You might find that one of those kind of fits your situation. They're very different in terms of all their other characteristics.

I think another thing could be, some people, their water—it depends what kind of water you're drinking. Of course, there are different pH's of water. People buy water alkalinization systems, if you have a health food store near you that has an alkaline water machine where you can try some alkaline water or buy some alkaline water already produced in a bottle. You might find if that doesn't feel like a rock, then it has something to do with the water you're drinking. It might be

more on the acid. There's never acid water, but it might be closer to pH 7. And if you had water that was closer to pH of 8, that might make a big difference. So you could try that.

Another possibility is that you have a chronic, low grade gastritis, meaning your stomach lining is inflamed and putting anything in there feels irritating. So, if that hasn't been diagnosed, that's something that might need to be looked into.

If that's the only symptom you have, you might not bother with all kinds of testing to look for the cause. But if it's really bothering you, eventually, you might have that looked at. And that would be an upper endoscopy. Scope would be the way to see if you have chronic gastritis.

[20:10]

Dr. Steven Sandberg-Lewis: Next question?

Cyndi Athmanathan: The next question is from Lois: "Say I have multiple health issues that can be related to the other, like loss of oral tolerance, nutrient deficiency, SIBO, Candida, excess estrogen, chronic mercury exposure through amalgam fillings and toxins, what is the treatment hierarchy to address these issues?"

Dr. Steven Sandberg-Lewis: Excellent! Excellent question and complicated answer. But I'll try not to make it too complicated.

I would say, in cases like this, detoxification pathways and liver function (and its detoxification pathways) are really important. There are detoxification enzymes in all tissues, especially the digestive tract and the liver. But I think support for the liver would be really important. And if, for instance, you're not already taking something like a glutathione product, that might be really important because it's the major antioxidant that the liver uses to do a lot of its phase 2 activities.

So, that might be a great place to start. Take the burden off the liver and start to support it with glutathione or methionine products, cysteine, B vitamins. And certain herbs can be used like silymarin, milk thistle, chelidonium, taraxacum (which is dandelion). Lots of things can be used.

If there's any thickening of the bile, if you have been diagnosed with biliary sludge or stones or gravel, you might be doing some additional things to thin the bile. Those are called *choleretics.* And those might be things like artichoke and French tree bark and lecithin… and even taking bile salts.

So, first dealing with the liver and the gallbladder if that's needed.

Next would be, if you know that you have the burden of certain toxins, you definitely want to deal with the cause of that and not continue to take them in if they're still sourced.

And probably the yeast and bacterial overgrowth are the next place that you get lots of toxins, mycotoxins from yeast and lipopolysaccharides from some of the overgrown bacteria in SIBO. And these things are a real instant burden for the liver because everything from the small intestine, all those metabolites, go directly to the liver through the portal vein. And the liver gets the first taste of that and has to deal with it. So it's a lot of extra work for the liver. And that is a factor in estrogen dominance or excessive estrogen burden in the body as well.

There are lots of things that can be done specifically for the estrogen burden. But a lot of it has to do with the liver and trying to normalize the flora in the large intestine. Beta-glucuronidase produced by bacteria in the large intestine can deconjugate the estrogen that's already been processed by the liver and on its way out. It came out in the bile into the digestive tract, and it's on its way out in the stool. The wrong kind of bacteria in the large intestine can convert it by deconjugation back into something that could be reabsorbed into the blood. And the estrogen just keeps circulating and putting more of a burden on everything.

So, working with a doctor or a nutritionist that knows how to do that is pretty important.

And then, finally, after everything's doing a lot better, I'd say then would be the optimum time to do the gut healing with zinc carnosine, with fermented vegetables and dairy products (if you tolerate those things), and with ghee and other sources of butyric acid and glutamine.

[25:25]

Dr. Steven Sandberg-Lewis: Big, big list… but I'd say live first and detoxification systems, removing the toxin burden and getting rid of the source (dealing with the yeast toxins and bacterial toxins which will all help with the estrogen), and then gut healing.

Next question?

Cyndi Athmanathan: Okay! David asks: "What are your thoughts regarding Dr. Skip Pridgen's studies and conclusions that HSV1 causes unexplained GI issues in fibromyalgia patients? He

has had success using a combination of antiviral "Famvir" and the anti-inflammatory "Celebrex" in resolving patients' GI and FM symptoms?"

Dr. Steven Sandberg-Lewis: So, using an antiviral like *Famvir* and an NSAID or an anti-inflammatory drug like Celebrex, that makes sense if you're trying to deal with a chronic virus.

I don't tend to use antiviral drugs. I tend to use antiviral or I would say viral immune support using natural substances. And certainly, a chronic viral burden can be an important issue for muscle pain. I mean, if you had the flu, and you have achy muscles, that's just a simple example of how viral responses in the body and the response of the immune system to a chronic virus could really cause a lot of myalgia or muscle pain.

So, I generally, for fibromyalgia (if I have a patient with it), I don't treat it. Patients don't come to me specifically for fibromyalgia usually. They come to me because they want to see if their digestive tract is part of it. And the big issues that come up is generally hydrogen SIBO. And some studies show that the higher the level of hydrogen, the more muscle pain. So often, we're treating that.

If that's not the case, or if that doesn't take care of it, often, we'll use low dose naltrexone or ultra-low dose naltrexone which, in itself, is very good for autoimmune conditions and fibromyalgia and chronic pain.

There also are some parasitic organisms that like to in-cyst or make little cysts in muscles and can cause fibromyalgia-like symptoms. And one of those is whipworm, *Trichuris trichiura*. We usually test for those. We can do antibody tests in the stool or saliva for those. Sometimes, we find that, and we have to treat the parasites that like to in-cyst (not the word *insist*) within muscles. So, that's another factor.

But certainly, natural treatments if needed for chronic viral issues, helping the immune system to deal with the virus so it doesn't continue to be chronic, these are great things.

Some of the natural herbal treatments for improving viral immunity include things like St. John's Wort, herbs like olive leaf. There's some natural products that can really help the way that the immune system responds to the virus. Lemon balm can be one of them, anything that improves the overall immune functions. So sometimes, we even have to just support secretory IgA with

something called *chyawanprash* or *trifle* which are Ayurvedic herbs that support the gut production and the mucous lining production of secretory IgA. So, that's all pretty important.

[30:45]

Dr. Steven Sandberg-Lewis: Also, I find that balancing the adrenal hormones—again, cortisol and DHEA—can be really important to help the body's immune system function properly to fight viruses. DHEA tends to promote immune function; and cortisol tends to suppress it. So the balance between the two is really important. And a lot of people have issues with their adrenal functions. So, that's something I often deal with a lot with fibromyalgia. I've seen good results with it—and other autoimmune.

Fibromyalgia is not proven autoimmune, but it really smacks of autoimmunity. So, it's in some ways similar to some of the things you see with Lupus and Sjogren's conditions. Other autoimmune conditions are treated similarly.

Next question?

Cyndi Athmanathan: Prasad asks: "I was diagnosed with Celiac in 2017." And he asks the question: "Do I have SIBO too?"

Dr. Steven Sandberg-Lewis: Celiac and SIBO are often related/associated conditions. In fact, we talk about the patient on a strict gluten-free diet who has Celiac but isn't getting better, what else do you have to consider? Well, probably the first thing is SIBO. After that, it would probably be pancreatic insufficiency. And after that would be dealing with the autoimmunity of Celiac. Occasionally, it could be any other thing too. I mean it could be stomach acid production being off. But often, we'll also have to help the immune system to function more efficiently by treating the autoimmunity that you see in Celiac.

Just because you have Celiac doesn't mean that you have SIBO? Well, not necessarily. A lot of people have dramatic improvement in their health when they just go on a strict gluten-free diet if they have Celiac.

But if your symptoms continue (or some of the symptoms continue, especially in the GI tract), then SIBO is a strong possibility and something to follow up on in Celiac patients that don't fully respond to a gluten-free diet.

I would mention too that both Celiac disease and SIBO can be related to food poisoning or acute gastroenteritis. It can come on after it or be triggered by it. If everything is just right, food poisoning or traveler's diarrhea or acute gastroenteritis can be the trigger that gets the immune system revved up and starts to affect motility in the gut. Studies show that both of those can be related to it.

Next question please?

Cyndi Athmanathan: David asks: "We've covered bacterial and fungal overgrowth. What about viruses? Can there be an overgrowth of viruses in the gut or small intestine leading to pathogenesis? How is this diagnosed and treated?"

Dr. Steven Sandberg-Lewis: So, I was just lecturing the other day to some student doctors. And I like to say that what we know about the biome and the small bowel and the stomach and the colon, the bacterial factors that are filling the gut, we know so little. It's as if we were in preschool. And some doctors talk about the bacterial biome, the microbiome in the gut as if we've got it all figured out. Well, we don't.

[35:10]

Dr. Steven Sandberg-Lewis: Naturopathic doctors have been working with that for over 70 years. But everybody else is just starting to look into it. It's very new. So I wouldn't let anybody tell you we've got it all figured out.

On top of that, then we have the fungome which is the fungus and yeast living in the gut. And then we have the virome, all the viruses that live in the gut. And probably, the estimation is the viruses outnumber all those other things manifold. We know almost nothing about that. That hasn't been knocked out. The Human Microbiome Project was just about bacteria.

So, I think it's going to be a big deal. And there are certain doctors, there are two doctors, naturopathic doctors, in the West coast that have actually been working with treating the microbiome by using bacteriophages. It sounds like *bacteria*, but phages are viruses that can affect the microbiome. It can balance the bacteria. It can kill certain bacteria that need to be killed off and help balance.

So, we're in preschool in terms of bacteria in the gut. I think we're not even born yet (like a newborn or we're in delivery or earlier, prenatally) when it comes to our knowledge of the virome in the gut.

So, I'm not sure how to answer that question except to say that's all in the future. You can treat viruses non-specific ally. You can treat the immune system to try to balance the way it deals with viruses. But to be more specific, I don't think we have any of that data or real knowledge yet.

That's an excellent question! And that's a big deal. And I'm sure, in the future, the human virome is going to be bigger than anything else we've studied.

Next question?

Cyndi Athmanathan: Anne writes in: "Distal SIBO could manifest in a lactulose breath test as a single peak of H2 (less than 50 ppm) only at three hours; while at/under 2 hours, the combined H2 + CH4 is less than 15 ppm? What do you think might be causing such a result? Gastroparesis and an open ileocecal valve…"

Dr. Steven Sandberg-Lewis: Ileocecal valve…

Cyndi Athmanathan: Thank you! I can never pronounce it.

"…slow transit times due to hypothyroidism and low T3 or several of those?"

Dr. Steven Sandberg-Lewis: Yeah. Well, I think the main thing about your question is—and H2 is hydrogen, CH4 is methane. They're saying: "Is it SIBO when hydrogen peaks at 50 ppm only in the third hour and is under 20 before that?" And so my answer to that is… that's not SIBO.

The definition that I use (which comes from the consensus) is that you're looking at either the first 120 minutes for hydrogen. Some doctors are even more conservative and are saying you're looking at the first 90 minutes. And if the hydrogen rises after that, that is normal because, in the colon, you expect to have billions of bacteria per gram. You're going to ideally have very high levels of hydrogen, and that's normal for the large intestine. And certainly, at 180 minutes, that's your last sample, it should be well into the large intestine unless someone has extremely, extremely slow transit.

So, I don't think I would ever call a hydrogen finally popping up higher than 20 at the last specimen on a 3-hour breath test as a positive SIBO.

I think you also mentioned a methane over 15. Now a methane over 15 is SIBO, methane SIBO, because the new consensus says anything over 10 ppm is positive for methane, and the old one says 12. So 15, if I heard that right, would be methane SIBO.

[40:23]

Dr. Steven Sandberg-Lewis: But that hydrogen peak to me is not significant of anything.

And your additional comments about gastroparesis and hypothyroidism, yeah, those are all real important, common underlying risk factors for SIBO.

Next question, Cyndi?

Cyndi Athmanathan: Okay! Our next question is from Marjorie. She says: "I tested high methane and no hydrogen but have chronic diarrhea. It seems to be worse after treatment." She specifies Flagyl and rifaximin "which gave me thrush and vaginal yeast infection. Could the treatment have given me Candida?"

Dr. Steven Sandberg-Lewis: Flagyl can definitely cause an overgrowth of yeast, Candida. Rifaximin occasionally does. In people that are prone to that, it certainly could. And thrush in the mouth and vaginal Candidiasis, if those are both coming up after the treatment, then I see no reason not to put those two together. It's a real possibility.

So, if we know that someone has a strong tendency towards yeast overgrowth, we usually will use some kind of either natural antifungal or prescription antifungal along with the Flagyl or rifaximin (or neomycin and rifaximin if we're treating that way).

Also, I've never seen a yeast infection come up from herbal antibiotic treatment for SIBO. So that's another great way to go if you know that you have a tendency towards yeast overgrowth.

And the elemental diet as a treatment for SIBO, it's a great treatment for SIBO, especially when levels are super high. But definitely, that could bring out a yeast overgrowth as well because of the carbohydrate content of the elemental diet powder. So, we usually will use a natural or prescription antifungal along with it when we know people have that tendency.

So yes, overgrowth can definitely be caused by most antibiotics; rifaximin, generally, not as much as most others. But if you have Flagyl in there with it, strong possibility.

Next question?

Cyndi Athmanathan: Christine asks…

Dr. Steven Sandberg-Lewis: Oh, I'm sorry. I'm sorry. Sorry, Cyndi. I just realized there was the question about high methane, no hydrogen, why do I have diarrhea?

So, first of all, after treatment with Flagyl and rifaximin, it doesn't mean it worked just because you took it unfortunately. Some people, it does nothing (or it does very little).

Also, when you take two antibiotics like this for methane, it can actually bring the methane level down but raise the hydrogen because you have fewer methane producers and methane producers make methane from hydrogen. So you may actually have higher levels of hydrogen and the diarrhea can get worse because hydrogen is associated with diarrhea.

There could be something totally different going on which can be an underlying risk factor for SIBO such as pancreatic insufficiency or hypochlorhydria (not enough stomach acid production). And those can cause diarrhea on their own. It could be some totally separate cause.

Also, there's something called *overflow diarrhea*. It's actually due to constipation in the colon causing a residual build-up of stool in the colon. That could be often seen on a CAT scan of the abdomen or a plain x-ray of the abdomen, and MRI of the abdomen. And when you have that residual stool building up in the colon, sometimes only liquid can get past it. And so people will have unformed or liquid stool, and it's actually due to a type of constipation and can be caused by high methane. I've treated that a lot. It's called *overflow diarrhea*. You can read about it.

[45:08]

Dr. Steven Sandberg-Lewis: The treatment that I often use is to treat the methane, so that the transit time improves and you get less residual stool building up in the colon. And sometimes, we refer patients to a really competent colon hydrotherapist or someone who does colonic hydrotherapy to wash that out. That can be really effective for people that tolerate that well.

And other people, sometimes, we'll just have them do the same kind of prep that might be done for a colonoscopy, kind of clean out the whole digestive tract, including the colon, with the

Miralax or Golytely or one of these other products if they don't have access to colon hydrotherapy.

But it's just a type of diarrhea that some doctors don't really understand. And don't blame your docs if they don't know about it. It's a real important cause of diarrhea. But it has to be treated as constipation, not as diarrhea.

Next question?

Cyndi Athmanathan: Okay! Christine asks: "With over five years chronic duodenitis, esophagitis, gastritis, GERD and burning tongue, would that indicate an issue with SIBO? It seems the talks don't address the stomach area connection."

Dr. Steven Sandberg-Lewis: Yeah! So, the stomach and the mouth and the esophagus can be where SIBO starts. And chronic gastritis, in itself, often leads to a decreased production of stomach acid. And we know that decreased production of stomach acid can be a risk factor for SIBO because that acid normally not quite sterilizes the food that you eat and things that you drink and saliva that you swallow, but it does dramatically reduce the bacterial load when there's adequate acid. So, chronic gastritis is definitely a risk factor.

And esophagitis can be due to a number of things, even Candida esophagitis. I don't know which type you've been diagnosed with. But the more common type is just reflux esophagitis due to chronic reflux.

And the duodenitis can go along with it all. Sometimes, that whole upper area is just inflamed. And so, the duodenum is responsible for responsible for producing some important hormones like secretin and cholecystokinin which are necessary to really get the whole digestive process flowing in the upper small intestine.

Also, the factors, the pancreatic enzymes and bile that are triggered by those hormones, when those are secreted, those really help to reduce the bacterial load as well because bacteria don't like those substances. They're irritating for the bacteria. That can actually start to digest their outer cell wall, so their bacteria are controlled in their growth.

So, I think this all makes perfect sense. And this is something that I do see in a lot of patients. And it can cause SIBO or be an underlying risk factor.

Burning tongue isn't really well understood. There are a couple of different theories about it—acid foods, B vitamin deficiencies, yeast overgrowth, things like that. I probably can't really address that right here. It's kind of a complex thing to tackle.

Next question?

Cyndi Athmanathan: So, Parjit is asking: "If you have SIBO, leaky gut and multiple non-digestion related inflammatory conditions such as skin rashes, inflamed gums or Sjogren's, how should one proceed to heal the leaky gut? What are the dietary, supplements and other recommendations to allow the gut lining to heal?"

[50:07]

Dr. Steven Sandberg-Lewis: Well, whenever you put a J after an S, it's hard to know how to pronounce that. It's pronounced like a Y.

Very good question about systemic symptoms from SIBO. When we see those systemic symptoms, we tend to think that the gut is more permeable. And it's a very common thing with bacterial overgrowth in the small bowel.

The small bowel is the most permeable part of the digestive tract. It's designed to be where we absorb nutrients and water and fluids. So, it's always quite permeable. But it's what we call *semi-permeable*. Only certain things are supposed to get through—which are nutrients that have been fully digested, so that they're not complex, large molecules that the body might see as a foreign substance once it gets into the blood or the lymph system.

So, you really want good digestion to happen. And then, the semi-permeable membrane absorbs things in their basic building block form so that you get the nutrition without the immune stimulation and all the symptoms, systemic symptoms, that can come from that.

So, like I said, it's always permeable, but it can become more permeable when there's bacterial overgrowth. And it can become more permeable if someone drinks too much alcohol or takes Ibuprofen or aspirin or other non-steroidal anti-inflammatory drugs. There's a lot of things that can trigger hyper-permeability.

And we know that, in Celiac disease, that's a major finding. People that eat gluten that have Celiac disease all have hyper-permeability of the small bowel.

So, how do you heal it? You can heal it by, of course, removing the cause. I sound like a broken record. I'm always talking about that. But that's the naturopathic approach, treat the cause.

And then, we mentioned before some nutrients that could be helpful. Certainly, there are some nutrients that we might use for treating SIBO that can be helpful like the berberine-containing herbs, goldenseal and Oregon grape and philodendron. Those are very healing to the gut wall.

And aloe vera, if it's tolerated. Certain forms are better tolerated by people with SIBO. Aloe vera can be very healing. Just like it can heal burns on the skin, it can heal erosions and changes in the mucosa internally.

And zinc carnosine, glutamine, short chain fatty acids, these are all things that can really help with the healing and might be employed; as well as fermented foods, if tolerated, which gives you more of some of those short chain fatty acids and other important factors.

But you have to remove that underlying cause if you know what it is.

Next question please?

Cyndi Athmanathan: Carla is asking or saying: "I have suffered for 16 years with what I now believe to be SIBO and SIFO (13 years for SIFO). I know I have Candida. My doctor will only treat if I refer to it as *head-to-toe thrush*—the jury is out on Candida being "real"—with Flucanozole. Listening Digestion SOS, I believe it was triggered by food poisoning as it fits with the timeline. I constantly alter my diet to find foods I can eat." She's sugar-, dairy- and gluten-, mainly wheat/oat-free."

Her question is: "Is there a finite time in which testing for food poisoning as a root cause for SIBO no longer works, i.e. my 16 years? Also, should I look to treat the SIFO before the SIBOS if they cannot be done together from a medication point of view?"

[55:01]

Dr. Steven Sandberg-Lewis: Well, SIBO and SIFO can be treated at the same time with herbal antimicrobials because the berberine-containing herbs, the Allicin extract of garlic, oregano, they all kill fungus, yeast and bacteria and can be very effective for that. So, I see no reason not to treat them at the same time. That can be done.

And as I've said before, you can also use antifungals along with prescription rifaximin and a second antibiotic if that's needed for methane overgrowth and methanogen overgrowth. So there's no reason not to treat them at the same time. And you could use caprylic acid. You can use just those herbs that I mentioned as a treatment for the yeast as well as treating SIBO. 5

And the other question was the timeline for testing for food poisoning as a cause of changes in the migrating motor complex. So nowadays, the only test that is commercially available (because there's a few others) is ibs-smart which is a blood test that measures anti-vinculin antibodies and anti-CdtB antibodies. Those are the two that we measure for post-food poisoning changes that attack the interstitial cells of Cajal and lead to a slowed down migrating motor complex which can cause overgrowth in the small bowel.

So, the general guidelines that I think of are three to five years. First of all, if the person's GI problems don't come on within a year or so of the food poisoning, I'm not necessarily thinking much about that. But sometimes, people have had multiple food poisonings. I've had one patient who traveled a lot to India and other places where she got food poisoning. She estimated that she had at least 40 times in her life. And that adds up because there's about a 10% chance of getting elevation of the antibodies each time you get food poisoning. And 40 times 10% is a very high percent.

So, it's not always one event. It could be a series of events that triggers more and more production of the antibody.

Again, though, if I don't see someone getting the onset of their GI problems or SIBO problems within a year or so of having food poisoning, I'm not going to start with that testing. But if it's been 16 years since you've had any food poisoning, many people—at least half of the people, we think—within three to five years of having food poisoning, those antibody levels will gradually come back down to normal.

And sometimes, I'll do an ibs-smart test—in the past, we did IBSChek, but that's no longer commercially available. It's the same test. And sometimes, we'll see the antibodies are what we call *equivocal*, which means they're not quite positive, but they're just slightly under that. And the person, if they had a history of food poisoning, and they felt like their GI problems started after that, it may be that it's been three to five years or longer, and therefore their levels were high, and they're coming down gradually. And now we're seeing them just kind of a borderline (not quite positive).

So, sometimes, that's really useful information as well because I will suggest treatments that really help with the reduction of those antibodies, things like low dose naltrexone, higher doses of fish oil, getting their vitamin D levels into the normal range. Those things can all be really helpful. And turmeric sometimes as well can be really helpful for normalizing those antibody levels.

Next question please.

Cyndi Athmanathan: Debra asks: "What treatments are there for the ileocecal valve dysfunction?"

Dr. Steven Sandberg-Lewis: Well-spoken!

Cyndi Athmanathan: Thank you.

Dr. Steven Sandberg-Lewis: You did it right, that's better. Just perfect!

[01:00:02]

Dr. Steven Sandberg-Lewis: I just lectured at an Applied Kinesiology seminar yesterday, or co-lectured, on the ileocecal valve. And I often lecture on it. And I have a whole chapter in my book on it. So feel free to have your doctor or nurse practitioner or naturopathic physician or whoever you work with read that chapter in my book, *Functional Gastroenterology.*

But the ileocecal valve is a really important valve at the end of the small intestine (as the food enters the large intestine). It helps to prevent back flow of huge amounts of bacteria from the colon into the small bowel.

How do you treat it? Well, it depends. And you either need a colonoscopy to tell you that the valve tends to be lax or open, relatively open, or whether it is too tight. Those things can show up on a colonoscopy. You have to know how to read the report. And you have to get the full report. And the doctor has to be willing to share that information. But that can sometimes be seen on colonoscopy report.

And there are functional tests for it too that use different reflex points on the body, tender points, or checking the strength of muscles that are related to the ileocecal valve (most specifically, the

quadriceps group will tend to be weakened for a closed ileocecal valve and the iliacus muscle in the pelvis or just above the pelvic will be weakened for an open or lax ileocecal valve).

How do you treat that? Again, you really need to work with somebody who does this kind of work. I use a massage technique, a visceral technique, to help the valve normalize. Sometimes, we also have to work with the cervical spine and the lumbar spine, the neck and the low back because there are areas there that have strong influence on the function of the valve. So you have to check to see if there's anything to work on there.

And then, there are nutrients. Just to give you a general idea, for a valve that's more closed and won't open properly, calcium and other minerals can be really important (calcium and trace minerals as well).

And also, I keep talking about the adrenals, but balancing the adrenals, people with a closed valve tend to be more sympathetic dominant. They tend to have you might say *overactive cortisol production*. And that can be tested and treated and balanced.

In addition, people who have a tendency toward an open ileocecal valve or a lax ileocecal valve that leaks, they're more likely to have an under-functioning production of cortisol in their adrenals, or perhaps an imbalance with the DHEA hormone. That can be tested and balanced.

And some of the nutrients that might be more specific for the ileocecal valve include liquid chlorophyll. Chlorophyll is always considered real specific for an open ileocecal valve; and perhaps also choline and other precursors to the neurotransmitter acetylcholine, such as lecithin.

And diet is important. The two most important foods that can trigger an ileocecal valve to dysfunction are most likely popcorn and chocolate (especially according to Dr. Michael McCann who I recently discussed this with. He feels like those two foods, more than almost any others).

But any food sensitivity might be a trigger. Certain parasites can be a trigger. I mentioned irritating foods like popcorn and chocolate.

Drinking way too much coffee or caffeine can definitely be a factor. And people with corn, soy, gluten or dairy sensitivities, those can be triggers.

[01:05:05]

Dr. Steven Sandberg-Lewis: And then, sometimes, emotions can affect the ileocecal valve as well. So, if there's an emotional cause, that needs to be dealt with.

Big topic but that's kind of a brief overview of it.

Next question please.

Cyndi Athmanathan: Okay! The next question is from Martina: "After "classical" treatment of Candida with Fluconazole, some specialists recommend to stay on a long-term protocol in order to suppress spore-forming, i.e. 200 mg. of cortisol once a week for a few weeks up to a year or two. What is your advice on this? And how can I suppress spore-forming through herbal medication that would cover species like C. glabrata and C. krusei?"

Dr. Steven Sandberg-Lewis: Krusei, yeah, two different Candida species.

Cyndi Athmanathan: "For example, after six weeks of oregano, I feel 90% better. But if I do nothing afterwards, a few months later, fungi symptoms return, Should I continue with the one weekly dose of 300 mg. carvacrol? Or would boric acid be an option? Or is it only for topical use?"

Dr. Steven Sandberg-Lewis: So, boric acid is for topical use. It's not used internally except in the vagina sometimes as a suppository or douche for yeast (you probably don't worry about that). But the weekly dose of oregano, carvacrol extract, makes total sense as a preventative, as well as treating the triggers and the underlying risk factors for yeast overgrowth (which I think we talked about before has to do with the immunity).

But yeah, why not use, once a week, a dose of oregano to try to mitigate that tendency for the spores to start to grow again and create another overgrowth?

You could also alternate. Depending on how you respond, you could alternate with an allicin extract with the carvacrol with a neem extract or berberine. All those things can help control yeast. And some people respond better to one than another. But yeah, I've seen oregano be extremely helpful for that. There's no reason why you couldn't do that.

You might also consider caprylic acid if the oregano eventually isn't working as well.

Next question.

Cyndi Athmanathan: Sure! Okay. So Vaughn is asking: "I was given a three-week course of nystatin for intestinal fungus. Within two days of completion, I had a rectal yeast outbreak that last about seven days. I presume the nystatin did not eradicate the fungus. I'm somewhat reluctant to take Fluconazole for three weeks due to potential liver or heart rhythm complications. Any safer alternatives?"

Dr. Steven Sandberg-Lewis: Well, Fluconazole, it has a lot of listed side effects. I don't see them very often. I find it to be pretty well-tolerated.

But if you want to avoid it, there are lots of options for treatment besides that for yeast. And I mentioned some of them already such as acrylic acid. Again, I am not prescribing for people here. I'm just kind of answering questions. So, you should talk to somebody about dosage. I shouldn't really talk about all those things like dosage; also, dealing with the underlying triggers and adrenal balance and things like that.

But in order to actually look at safer alternatives, I just mentioned how, some people, the garlic extract or the neem, or just improving your own production of secretory IgA with trifle—or *triphala* is another name for it (it's an Ayurvedic combination of three herbs), or chyawanprash which can be 15 or 20 herbs usually in a base of ghee—those things can be really helpful for the immunity in the gut to help prevent yeast overgrowth. Just make sure if you get chyawanprash that it doesn't have cane sugar in it. They make it with honey as well.

[01:10:14]

Dr. Steven Sandberg-Lewis: Other options, I mentioned diet is really important. And sugar and alcohol are big factors (carbohydrates, in general).

Other treatments for yeast… ozone. There are doctors that have ozone generators that they can use it for the digestive tract and the rectum. It's a perfect use. The ozone is produced in a certain quantity and strength, and then it's used with sort of an enema bag, but instead of fluid, it's just the ozone. The gas is insufflated into the rectum. And that is a dramatically effective treatment for yeast and bacterial overgrowth. And it actually helps to heal the lining if it's damaged as well because it helps oxygenation of the tissues. It gets more oxygen there.

So yeah, any number of different options available.

Next question please.

Cyndi Athmanathan: Alina is asking: "If nystatin hasn't cleared SIFO, what safe for liver SIFO treatment options for a patient with sclerosis cholangitis/cirrhosis?"

Dr. Steven Sandberg-Lewis: Yeah, primary sclerosing cholangitis is typically a liver disease associated with ulcerative colitis (more commonly in men, but I've had a few women with it as well). And I have some primary sclerosing cholangitis patients that are doing very well. And that's always really promising. It depends at what stage you start treating it. If it's already progressed to cirrhosis, then you definitely want to get it under control as fast as possible before you lose more liver function.

Safe treatments for SIFO in patients with compromised liver function like that would be, of course, an individual thing. The nystatin was a reasonable first try. I would probably go with caprylic acid treatment.

The herbal treatment that we looked into for patients with cirrhosis—we've done a looking-into what herbs are available—it looks like the oregano is probably one of the safest ones for dealing with yeast in patients with compromised liver. A lot of the other medications, even the berberine, might be contraindicated.

So, I'd say caprylic acid or the rectal ozone—ozone is quite good for the liver as well (you don't breathe it, but it's taken in through the rectum)—and then, caprylic acid.

And if I'm wrong about the ozone with cirrhosis, I will correct myself later. But I believe that that's fully safe for cirrhosis.

Next question please.

Cyndi Athmanathan: Okay! Anna asks: "Would you treat high levels of any of the following species of microbiota?"

Dr. Steven Sandberg-Lewis: Okay, now you may have trouble pronouncing those.

Cyndi Athmanathan: So, that's Citrobacter, Klebsiella, Bacteroidetes, a number of different what we call *commensal* bacteria, normal flora that are just overgrown. And this is on a stool test we're talking about, either with DNA or culturing (DNA testing or culturing).

And so, the question is, just like in SIBO, if you have normal bacteria in the small bowel that are overgrown, we generally treat that if there are symptoms. If you have an overgrowth of normal bacteria in the large intestine on a stool sample (which is the way we find that, by doing a breath test for SIBO), would you treat it?

[01:15:22]

Dr. Steven Sandberg-Lewis: My approach has always been to crowd them out. The idea here is that these are normal flora. These are not pathogens. These are not disease-causing bacteria normally. When they're overgrown, they can cause problems. But it's all about the balance. So, they belong there, but they belong there in smaller quantities.

So often, what we'll find when we see an overgrowth like that, we'll see that the Lactobacillus, the *E. coli*, the beneficial *E. coli*, and the Bifidobacterium have either no growth at all or very low levels. And so, what I like to do is bring those levels up. Give any type of probiotic that does well for that particular person. Often, the lactic acid bacilli, bifidobacterium, lactobacillus, as a probiotic or probiotic foods, and try to bring those levels back up. And that will automatically crowd out the overgrown commensals that normally are a smaller part of the ecosystem there.

So, probiotics and probiotic foods are generally my approach to that and just improve the immunity as well. Especially with the overgrowth of Klebsiella or citrobacter, if it's cultured, and it's a 3 or 4 plus, that usually tells me that their generally gut immunity is reduced. And I'd really want to work with that. And I talked about that before with secretory IgA bringing up those levels and balancing the food intolerances and working with the adrenal function.

Next question.

Cyndi Athmanathan: Lindsey talks about: "I would love to know the differences in treatment protocols and what specifically needs to be considered when it comes to treating methane and hydrogen dominant SIBO."

Dr. Steven Sandberg-Lewis: Well, I think this is a question that we've really thoroughly discussed before, but I'll give a brief overview.

I would say, also, I didn't mention Anna's question about the overgrown commensals. If you don't tolerate oral probiotics, you can use them rectally. You can mix the powder or liquid probiotics with some water, or put them in a rectal syringe (which is like a baby enema syringe)

and just squirt them in. That sometimes is better tolerated. And you're going to get it into the colon that way instead of it having to go through the small intestine first.

Lindsey's question, my usual approach to methane overgrowth is allicin extracts (which is the garlic without the fructans), oregano. I think those are probably our two best herbal medicines for methane-producing overgrowth.

And for hydrogen, the berberine-containing herbs such as golden seal, Oregon grape, philodendron, golden thread, those kinds of herbs.

And we'll usually use combinations of things if both are present, both hydrogen and methane SIBO. If the levels of especially hydrogen are extremely high—what we call severe SIBO, if they're are over 100 ppm of gas or combined gases—if it's appropriate, we'll recommend the elemental diet because that is the most reliable way to reduce the gases by up to 150 ppm in two to three weeks.

If you go with the herbal route, or you go with prescription treatment, then you may need four or five courses of treatment over time to adequately reduce the level. Sometimes, it goes faster. But I always tell people it's probably going to be a long haul when levels are really, really high.

[01:20:03]

Dr. Steven Sandberg-Lewis: And of course, diet and prokinetics of different types, whether they're prescription or natural prokinetics, those are going to be really important, together with a low fermentation diet during the prevention phase after treatment.

Rifaximin alone is used for hydrogen SIBO; rifaximin, plus a second antibiotic, typically either neomycin or metronidazole (which is also known as *Flagyl).* The two of those together, I usually use to treat nothing.

Next question.

Cyndi Athmanathan: Benjamin asks: "I have been tested and am SIBO-free. Why do I still have gurgling and gas from FODMAPS? How to fix it?"

"If you answer that I have fructose and lactose malabsorption, what can I do to fix it?"

Dr. Steven Sandberg-Lewis: I'll start with the malabsorption of simple sugars.

Yeah, fructose malabsorption, it's a tough one. The only real treatment I know for that is to avoid foods high in fructose. And that's what the low FODMAPS diet is all about. And that's why the low FODMAPS diet says don't eat honey because it's 50% fructose.

If you have lactose intolerance, you can try taking lactase enzyme with meals that contain foods that have lactose. You can of course also use lactose-free dairy products such as 24-hour yogurt, dry curd, cottage cheese, lactose-free sour cream that's homemade, and cheeses that are fermented more than a month (which tends to convert the lactose into lactic acid, which is what makes cheese sharp or tart as it gets more fermented).

Other than that, you can have of course abdominal gurgling and gas just from eating high FODMAPS foods even if you don't have an overgrowth. Most people, if they eat beans, legumes of most types, lentils a little less so, are going to tend to have gas because beans are designed to be indigestible. They're designed to be eaten by animals. And they contain indigestible carbohydrates, one of them is called stachyose.

And those indigestible carbohydrates are designed to keep the beans from getting digested if an animal just swallows them and doesn't chew them very well, so that when the animal has a bowel movement further down the path, they're going to plant legumes seed, hopefully intact, and some fertilizer as well. It's the perfect way for the plant to propagate itself and grow in different places.

So, all the diets after SIBO are generally bean-free diets because, by definition, beans have indigestible carbohydrates.

And if you do use beans, make sure you don't buy the ones in a can because they're going to have plenty of stachyose; and instead, soak them overnight. Pour off the water, soak them again for six hours or so in a second batch of water. Pour that off, and then cook them (maybe in a third batch of water). And that soaking process can help to remove some of the surface indigestible carbohydrates.

Next question please.

Cyndi Athmanathan: Okay! Anand is asking: "What's your go-to for parasite testing and protocol?"

Dr. Steven Sandberg-Lewis: Hmmm… alright, I'll try to make that simple.

There are different ways to check for parasites. Of course, there are labs that do DNA testing. And they feel like that's the most sensitive way because you don't even have to see the parasite. You could just find its DNA in the stool.

There are labs that do very thorough microscopic examination of urine and stool. They just really comb through the samples until they find something or don't find something. That's often called ova & parasite testing (O&P).

[01:25:01]

Dr. Steven Sandberg-Lewis: And there are other labs that will try to do what we call *antigen testing*. These antigen tests are only available for certain bugs like *Giardia* and *Cryptosporidium*. They leave behind a protein that can be measured separate from the DNA or the microscopic testing.

So, those are the most common ways that we test them. We'll use different combinations of the three. Sometimes, we'll repeat a test if we really think there are parasites based on the history and the symptoms. We'll try a different type of testing.

And sometimes, it actually shows up on a colonoscopy or an upper endoscopy. In fact, Dr. Sam Rhobar who's a gastroenterologist in LA, what he does when he's suspecting parasites and isn't finding them is he'll do an upper endoscopy, and then go get a sample of the bile from the gallbladder because parasites often love to live in the gallbladder. It seems to be a great place for them to multiply. And sometimes, when we treat parasites, if you don't eradicate the ones in the gallbladder, they'll just come right out when the gallbladder contracts after a meal that contains fat, and there you go again after treatment.

So yeah, Dr. Rhobar is the one that has that option for parasite diagnosis.

The treatment is all over the place. There are so many options. Depending on the bug, there are many drugs that are used. And I find drugs often are the way to go with parasites. I find that

herbal treatments usually just don't do it. They might work for a short time, but they don't seem to really eradicate fully.

So, drugs like metronidazole or Flagyl. There's also one called *tinidazole* which is a related but perhaps more effective one for some types of bugs. We also use *Alinia (nitazoxanide)*. And that's FDA-approved for Cryptosporidium and Giardia. But a lot of doctors use it to treat *Blastocystis hominis* and entamoebas of different types, *E. histolytica* and *Dientamoeba fragilis*.

So, I have to say that my experience has been that I've tried a lot of herbal treatments and natural treatments for parasites, like those that I've just mentioned. But when it comes down to it, the prescriptions tend to be the ones that we see the best effect.

Next question.

Cyndi Athmanathan: Okay! So, Dorothee has a question. She says: "I have SIBO, SIFO and parasites, megacolon, colonic inertia. When I have bowel movements, the pain starts shortly before the BM. It gets worse during (unbearable) and after the BM, increasing up to 10 hours after BM. By then, the symptoms are extreme cramping, bloating, nausea, muscle burning, migraines, itching, insomnia. Only about 15 to 20 hours after BM, the pain decreases. Gas is relieved. Other symptoms decrease, and I can sleep. Next day, if there's no BM, I'm fine."

"Here's my question. Why do you think do I have these extreme symptoms? And why are they increasing after BM? Is it die-off as I'm constantly on botanical antimicrobials or overgrowth of new microbes? And why is the gas worse later after BM? Could it be adhesions that caused that pain or increased overgrowth of pre-existing microbes?"

Dr. Steven Sandberg-Lewis: Megacolon is an uncommon condition and can be very serious. There's a congenital type that's called *Hirschsprung's*. And it's often diagnosed in childhood.

And then, there's acquired megacolon. And the most common cause of that is ulcerative colitis. That's usually a pretty ominous sign. And often, the colon is removed if there's significant megacolon.

And megacolon means the colon dilates and gets wider.

[01:30:10]

Dr. Steven Sandberg-Lewis: So, I'm not sure which kind of megacolon you're dealing with. It's a pretty rare condition in general, but I've dealt with it quite a bit because of my specialty. I'm not sure I'm going to be able to answer your question because there's too much I don't know about your situation. It seems pretty complex. So I won't try to give you too much information based on very little that I know about your situation.

But let me say that, if you do have megacolon, and it's chronic and controlled and you're not in an emergency situation, that's a unique situation. That can lead to inertia (meaning not much movement in the intestine).

The pain could be a number of things. The pain could be that you have visceral hypersensitivity, and you're sensitive to the actual contractions, normal contractions, or the best contractions you can manage to get in a situation with colonic inertia. And someone really needs to work with your perception of peristalsis and how that normal or near-normal contraction feels like pain to your brain and your gut. And that's a pretty complex situation.

So, if you want to speak with me more about that, we probably need to have a phone consult and get more information. But that's my general first response.

Next question please.

Cyndi Athmanathan: So Dipak asks: "I have chronic GERD and have been recently diagnosed with Barrett's esophagus. I'm currently on PPI, prolonged use, of which I have a myriad of side effects including GI issues, namely SIBO and dysbiosis due to absence of the stomach acid barrier. Seems like a damned if you don't/damned if you do situation. What are my options? Are there available natural alternatives? Does H2 receptor blockers have similar issues?"

Dr. Steven Sandberg-Lewis: Proton pump inhibitors, questions about chronic reflux and Barrett's, I tend to recommend nutritional and botanical treatments for Barrett's. I like to have all my Barrett's patients and consults consider this (and I'll speak to their health practitioner about it if I'm not their doctor). The first one is a berry extract.

Now, I have a patient who grows thousands and thousands of berries on her property. And so she just eats a cup of berries. And that works fine. But you can also get berry extracts that are frozen, extracts that are very concentrated and things like that *that* have the anthocyanins that we think

are so important for preventing stomach cancer, esophageal cancer and have been studied for Barrett's esophagus. So I recommend that every day.

And then, selenium, I guess this will be the only one I actually give a dosage for because the typical is 200 micrograms a day. It's been studied with Barrett's, to help normalize Barrett's. But especially, in all of these cases, you want to normalize the tissue (which it definitely can), but this is a good chemo-prevention method. These things help to prevent further dysplasia and cancer of the esophagus—which is pretty rare anyway, only about 1% of patients with Barrett's, who develop Barrett's from chronic reflux, actually end up getting esophageal cancer or severe dysplasia. But this way, you can decrease the odds even more.

And another one besides berries and selenium is green tea extract, the catechins from green tea. We can use this tea, drinking the tea or taking an extract of the catechins.

[01:35:05]

Dr. Steven Sandberg-Lewis: And the last one would be turmeric or curcuma (the Latin version) or curcumin which is an extract from it. Turmeric is excellent from chemo-prevention as well.

So, those four things are definitely indicated. Speak to your nutritionist or health practitioner about dosages.

And we can go on to the next question if you want to do that one, Cyndi.

Cyndi Athmanathan: Okay. Malgorzata asks, she states: "I am a clinical dietitian who's been working with SIBO/SIFO patients for years. I started to see some patterns that, in some people, vegan-type diets full of fiber, FODMAPS, can not only lead to SIBO but also SIFO symptoms."

"My hypothesis is that some people cannot tolerate that much fiber, FODMAP that some of those plant-based diets contain. And that can lead to microbial overgrowths as, in those people, there is no apparent pathology in lowering the fiber and FODMAP content of their diet leads to complete resolution of symptoms without treatment. Do you have any thoughts on this?"

Dr. Steven Sandberg-Lewis: I totally agree with you, Malgorzata (if I'm saying your name correctly). The way that we use the *Specific Carbohydrate Diet*, there's a couple of engineers

that created a website called *SCD Lifestyle*. They did a nice job of helping people with inflammatory bowel disease and giving them tips about the diet.

I remember they have, on their website, a concept called *the 4 horsemen of the Apocalypse*. And what they mean by that cute term is that, even though the *Specific Carbohydrate Diet* contains a lot of food, there are certain ones that they recommend for groups, that they recommend watching out for. Even though they're part of the diet, they may need to be removed one at a time if the diet is not working as well as it normally does.

And so, the *4 horsemen of the Apocalypse*, one was eggs. Another is dairy products (even though lactose-free dairy products are normally allowed on the diet). Another one was too much fruit or honey (which are allowed on the diet, but certainly could be problematic). And another one would be raw fruits and vegetables.

And we just find that, especially people with inflammatory bowel disease, but people with irritable bowel syndrome as well, some of them have a really hard time with fiber. And using just cooked foods (even cooked fruits, stewed fruits) could make a big difference for a lot of people who have irritable bowel syndrome. And it's definitely one of the four things you could try to remove from the diet initially to see if it would make a difference.

And Dr. Allison Siebecker has also talked about something I hadn't thought about. And that is if you're going to eat something like lettuce, eat soft lettuce. Eat soft fruits rather than crunchy, hard fruits. And when you think about it, butter lettuce, it really is almost buttery soft compared to something like romaine or certainly even raw. The worst might be raw kale which is just so rough. So there are different kinds of fibers and there's different textures of foods. And that can all make a difference.

And I'll just end that answer to that question by adding that irritable bowel syndrome and the more serious inflammatory bowel disease, Crohn's or ulcerative colitis, can co-exist in the same person. So they're not mutually exclusive. There's lots of research on IBD and IBS meaning you can have IBS flares even in between inflammatory bowel disease flares, which can be very confusing to patients and doctors if you're thinking you can only have one condition or the other condition. You can have them both unfortunately. But knowing that really can help make better decisions about treatment.

[01:40:23]

Dr. Steven Sandberg-Lewis: Next one please.

Cyndi Athmanathan: Sure! Jeanne asks: "I've been diagnosed with several autoimmune conditions, causing inflammation and pain such as IBS and several other GI bacterial infections. I've already tried the FODMAP diet and Keto diet plans with supplements. However, I haven't had success. I'm still suffering from consistent acid problems, inflammation and chronic constipation when I'm now following an organic diet with low carbs, low preservatives, decreased gluten in dairy products. Can you recommend a better diet plan to follow that won't cause weight gain?"

Dr. Steven Sandberg-Lewis: So, she said she has several autoimmune conditions. I kind of picked out the key details there again. That was a long one for me.

Cyndi Athmanathan: She's got conditions causing inflammation and pain such as IBS. And then, she just says "several GI bacterial infections."

Dr. Steven Sandberg-Lewis: Oh, she didn't say anything about autoimmune disease?

Cyndi Athmanathan: Oh, sorry, yes. She's been diagnosed with several autoimmune conditions which she doesn't specify.

Dr. Steven Sandberg-Lewis: And she tends toward constipation. And she's asking about diet besides gluten-free and dairy-free and organic? What else about diet?

Cyndi Athmanathan: Correct! So she's tried FODMAP and the keto diet with some supplements. But she's still suffering. And she is now following an organic, low-carb, low preservative, decreased gluten and dairy product diet plan.

Dr. Steven Sandberg-Lewis: Well, you've given me a bunch of factors there, but I don't really know the details. So I'll speak generally about that.

First of all, when things aren't working and someone that I'm consulting with, a patient of mine, has a number of things that have been diagnosed and are being treated for those things, and they're not getting better or they're not fully better, I usually go back to the basics and check and see are the basic things taken care of.

So, in autoimmune disease, in general, some of the important things—I'm going to sound like a broken record—are stomach acid level. Hypochlorhydria is very common in autoimmune

disease. If you don't have proper acid as we've talked about before in the stomach, then as the stomach contents leave and move into the small intestine, you won't have the same kind of triggering of pancreatic enzymes through the mechanisms of secretin which is normally a hormone that is secreted in the small intestine in response to acid. And it stimulates the pancreas to put out pancreatic enzymes and bicarbonate to try to neutralize the stomach acid. But that won't even happen. Not much of that will happen if there isn't acidity to the stomach contents. So that's kind of the start of it all.

And then, sometimes, there's also true pancreatic insufficiency which can be measured with a stool elastase test. Stool elastase or chymotrypsin, either one of those in the stool can measure pancreatic enzyme function. That's also a big issue for people with autoimmunity. And that's especially true, pancreatic insufficiency is more common with diarrhea problems. But it can occur with constipation as well.

I assume that you've already been breath tested, and you know whether or not methane is an issue there as part of constipation and other symptoms.

Some other basic things when I'm checking a patient in my office, I'll check the ileocecal valve, the ileocecal valve at the bottom of the small intestine and the beginning of the large intestine. We talked about this in an earlier question. If it's either stuck more tightly closed, or if it stays open too much, you'll have issues with mixing of colonic flora and small bowel flora which can cause SIBO. You can also have constipation just because things don't move through properly.

[01:45:26]

Dr. Steven Sandberg-Lewis: And so many other basic reasons why somebody might be constipated; just things like fluid intake and physical activity, abdominal exercises, things like that. And there could be adhesions from previous surgery or endometriosis or a perforated organ like appendicitis or a ruptured ovarian cyst.

All these kind of basic things are things that I look at, as well as testing for hypermobility syndrome which, in itself, hypermobility syndrome not only affects the joints but can cause prolapse of internal organs, especially the colon. It can make all the organs, especially the colon and the stomach, longer. The colon can get more torturous, bendy and twisted. And that, in itself, can cause a lot of constipation that doesn't respond to standard methods.

Certainly, with autoimmune conditions, I always offer people low dose naltrexone, higher doses of fish oil. And I make sure their vitamin D levels are in the normal range to help with the regulatory T-cells which are the band leaders or the orchestra leaders of the whole immune system and can really help with autoimmune conditions of all types.

So, that's my answer to that complex question that I don't have all the details for.

Cyndi Athmanathan: Okay! So, Mary is just asking: "I have had diarrhea on and off for the past 10 years or so. I just lived with it, avoiding things that trigger it. I had an MRI for my lower back recently. And one of the findings was fluid-filled bowel loops. The doctor never mentioned it, and I just happened to read it."

"I have an appointment with the GI in November. I'm wondering is this finding significant to my digestive issues or is it a result of them?"

Dr. Steven Sandberg-Lewis: So, fluid-filled loops of bowel, small bowel, tend to be either significant or insignificant. They can be significant because, especially if there are areas—so, here's a loop bowel. Normally, you don't see a level of fluid in it, like a water line. But if you see that fluid-filled loop, and you see an area that is very dilated or stretched wide just before that area, then that's more ominous. That's more indicative of an obstruction in the small bowel because the area with the fluid, things aren't moving through, and the area just before it actually starts getting wider and wider because things aren't moving through there either and there's more pressure.

So, either dilated areas between the fluid-filled loops or a thickening of the wall around those loops could be indications of small bowel obstruction and things like Crohn's disease that tend to thicken the wall and can cause obstruction as it causes narrowing of the bowel.

So, it just depends on all the details. But perhaps your doctor was more orthopedic-focused and didn't really know what to make of the fluid-filled loops or might have thought that they were significant. But the gastroenterologist can be more definitive about that.

And the most common things that will cause small intestine obstruction (and sometimes recurrent obstruction) would be adhesions in the bowel as I've mentioned previously from surgeries or perforated organs or endometriosis.

[01:50:18]

Dr. Steven Sandberg-Lewis: Yes, next one.

Cyndi Athmanathan: Okay! Rachna is asking: "Do supplements stop the MMC? If I'm spacing my meals but take my supplements two hours after I had eaten, do I disrupt my cleaning waves?"

Dr. Steven Sandberg-Lewis: Yeah. So, I actually decided I would ask Dr. Lisa Shaver and Dr. Allison Siebecker about this, and put all our heads on that one. And the general consensus is that most supplements are non-caloric. Now if you're going to take 3 grams of fish oils, very good calories from fat. But if you're just taking a multiple that doesn't have any particular high fat in it, then likely, that wouldn't do it.

If you want to be totally safe, you'd take your supplements with meals. If they're supplements that are supposed to be taken separately, as long as they're non-calorie (or have almost no calories to them), the consensus was that it shouldn't affect the migrating motor complex, slowing it down and prolonging it for up to four hours.

Cyndi Athmanathan: Stephanie is asking: "I have no gallbladder or appendix. I'm just finishing Matula tea for H. pylori? What do I need to be aware of when starting SIBO protocols? Do I need to make sure that the H. pylori treatment has worked first?"

Dr. Steven Sandberg-Lewis: Well, I'm just not sure why you're being treated for H. pylori. Some people are treated just because it's found… meaning if you test for it and find it, you treat it, whether or not it's really significant in terms of what's going on in your health situation. So, I'm not sure why.

Now, if you had gastritis or a peptic ulcer, and that's why you were tested for H. pylori, and it was positive and you were treated for this herbal treatment, then I guess you want to find out if it worked because that might be part of the cause of your problems, and your SIBO might be either separate or less important. But I'm not really sure what the whole situation is.

Unfortunately—I harp on this a little bit—natural-focused doctors sometimes do panels, stool panels, that include H. pylori. And my recommendation is not to test people for H. pylori unless they actually have symptoms like a peptic ulcer or a very unusual condition called *lymphoma of*

the stomach which is also called *MALToma* or certainly if they have a high family risk of esophageal cancer. Those are all reasons why you could check for it in a person after age 3.

But a lot of people just get screened for H. pylori through a stool test that has lots of other tests on it. And the issue I have with that is that H. pylori is an important commensal organism. It's essential according to lots of research for the newborn and the child in their early years. It helps to mature their immune system. It's the most central, ancient organism that's present in the stomach, the gastrobiome.

And so, it used to be 100% of everybody in the world had that in their stomach. And every mammal on earth has a Helicobacter—not *Helicobacter pylori*, but their own version of a *Helicobacter* in their stomach (whales do, pigs do, all animals do that are mammals). So, the idea of just checking it on everybody and killing it if you find it makes no sense to me because it's supposed to be there.

[01:55:16]

Dr. Steven Sandberg-Lewis: At older ages, after age 30 or 40 or 50, sometimes there are certain strains of *H. pylori* which can increase the risk of stomach cancer or—if I said esophageal cancer before, I said it the wrong way—stomach cancer, lymphoma of the stomach or peptic ulcer stomach or duodenal ulcers.

So, certainly, when those kinds of conditions are present (and there are some others, some skin conditions that are related, or a type of iron deficiency anemia that's related), if those things are present, it makes sense. But just to check for commensal and kill it makes no sense to me. And that's why we ended up with a situation where less than 10% of American adults have H. pylori in their stomachs now and less than 5% of children in the US. And that's especially bad for the future of children, to be born without H. pylori and not get it from their parents because their parents don't have it to give. They'll then end up with, unfortunately, a lot more Crohn's disease and allergies and things like asthma and eczema and a lot more reflux and Barrett's (because H. pylori is actually protective, according to research, against reflux and Barrett's. I try never to treat it in patients that have those things already if I can).

So, long answer about the H. pylori part. There are herbal treatments that can kill H. pylori. It's great if it needs to be killed to do it with herbs. I've seen a number of SIBO cases where the only thing we can come up with was that it was after H. pylori triple therapy, standard therapy, that

people developed the symptoms of SIBO. So the proton pump inhibitor + two antibiotics or more is sometimes the trigger that starts SIBO.

So, I don't have a perfect answer for your question except to say I don't know in any way that H. pylori, having it, increases your chance of having SIBO. But I do now that standard triple therapy in at least three or four cases that I've seen was the trigger that started SIBO.

Alright, next question please.

Cyndi Athmanathan: Okay! Connie asks: "I take CREON as a 24-hour stool test showed I make only 87 of normal 4500 of that enzyme." I'm not sure if she's saying "I'm better."

Dr. Steven Sandberg-Lewis: Yeah. I think she's saying she's better.

Cyndi Athmanathan: Or she's better in the a.m.

Dr. Steven Sandberg-Lewis: She's better in the a.m. because she had a stool elastase of 87 which is very low. That's severe pancreatic insufficiency. Anything under a hundred is severe. If we're seeing out of 400 to 500, 400 is a good level, a very good level. And 500 is ideal. So you can see how low her level is.

And then, she says she's doing better. But there's more to the question too, right?

Cyndi Athmanathan: Yeah, yeah. She's saying "have had dumping for 16 months since fundoplication surgery." And she's asking for advice.

Dr. Steven Sandberg-Lewis: Yeah. So she says she's doing better. And I don't know if that means her dumping syndrome is better and she doesn't have sudden—dumping syndrome means different things to different people. Some, it means that they get sort of an autonomic response when they eat food, when food enters systemic and it causes their blood sugar to dramatically drop and they get dizzy and spacey and light-headed and nauseous. Other people use the term dumping syndrome sometimes to indicate that they get diarrhea soon after eating. And that would make sense certainly with severe pancreatic insufficiency, that diarrhea would be a real issue after meals and malabsorption.

[02:00:09]

Dr. Steven Sandberg-Lewis: And it sounds like that Connie is saying that she had a Nissen fundoplication surgery which is a surgery for severe reflux or a hiatal hernia that's causing reflux which is a pretty good surgery. It often has a good outcome. So, I'm not sure if she's just saying…

I just want to comment on the CREON. CREON is a prescription form of pancreatic enzyme. The prescription pancreatic enzyme are similar to the over-the-counter ones, except that they're enterically-coated. And they're more expensive and may be covered by insurance. CREON is one of them, Zenpep. There's a number of different prescription forms.

You never know what's going to work best for somebody with severe pancreatic insufficiency like this until different things are tried. So, if the CREON is helping, great. And if it's helping the dumping syndrome, and by that you mean diarrhea after eating, then that makes a lot of sense. And it sounds like it's doing what it's supposed to.

So yeah, I agree. CREON's fine. If the CREON wasn't doing a good job, then pancreatic enzymes could be tried from Aspergillus or a non-enterically coated pancreatic enzyme like pancreatin or pancrelipase (which are from pork enzymes). But if the CREON is working, that's great. It's probably covered by insurance. And that sounds like a good way to go.

Next please.

Cyndi Athmanathan: Okay! Anand is asking: "I'm trying to resolve a puzzle around my 8-year old daughter not gaining weight, skinny, vitiligo, high anxiety, focus issues, disorganized, picky eater, fine motor challenges. What tests would you recommend? And what could be the cause and protocol?"

Dr. Steven Sandberg-Lewis: Well, the first thing that comes to mind with a child who's underweight and has vitiligo and emotional issues would be Celiac disease. So certainly, if there's any Celiac disease in the family (and even if there isn't, and it's never been tested for), that would be a really important thing to test for. It can cause failure to thrive in underweight children and adults.

It's an autoimmune condition. And vitiligo is often associated with autoimmune conditions. And then, Celiac not only can affect the gut, but it can affect the central nervous system and really

cause a lot of cognitive symptoms and mood symptoms such as anxiety and inability to concentrate all those things.

So, that would be one thing I would definitely screen for. And make sure that, number one, if your daughter has been avoiding gluten, the test isn't going to be very accurate. So usually, you have to add gluten back if it hasn't been helping to remove it. Add it back daily for at least six weeks, if not eight weeks, the equivalent of a piece of bread every day for six to eight week. And then, do a blood test for Celiac.

And many doctors just do a single or two tests for Celiac. But that's not complete. So what you want is tissue transglutaminase, two different forms—IgA and IgG. You want a total IgA. This is all in the blood serum. And then, you want deamidated gliadin peptide (DGP)IgA and IgG. Those five tests are blood test for Celiac markers. There are lots of other fancy tests you can do, but those are the standard ones.

You can also test for non-Celiac gluten intolerance by checking the anti-gliadin antibody. Lots of labs, if the doctor orders an anti-gliadin antibody, they'll actually do the DGP, the deamidated gliadin peptide. And they won't even tell their doctor. They just substitute. So your healthcare practitioner has to specifically ask for a true anti-gliadin antibody in order to get a marker for non-Celiac gluten intolerance if you want to check for both which is a good idea because it can cause the same symptoms but the tests are different.

[02:05:47]

Dr. Steven Sandberg-Lewis: Certainly, we didn't say anything I think about the digestive tract and the digestive symptoms—just the underweight, the vitiligo, the anxiety, the mood, the focus, right? So I'm not sure if we get the GI-related disorders in there or not. But other things that you might screen for besides Celiac would be certainly—I mean, it's possible this child is on the autistic spectrum. I don't know all the details here.

Diet-wise, certainly, the most common food sensitivities that can cause all kinds of issues would be gluten, dairy, eggs, corn, soy. But a panel to check for IgG or IgA antibodies to 90 foods is a common thing that's done. You can see if there's many atypical food sensitivities.

And of course, there's always the possibility of a salicylate sensitivity which can cause a lot of the mood and cognition issues in kids. So that could be looked into.

If you were checking for autoimmune conditions, you could start with just a general antinuclear antibody (ANA). It's a blood test. And if you wanted to be more specific and more detailed, you could order one of those arrays. Have your doctor order one of those arrays. Can I say the name of the lab, CyndI?

Cyndi Athmanathan: Yeah, definitely.

Dr. Steven Sandberg-Lewis: Cyrex Lab does an autoimmune panel that is very, very detailed, especially for neurologic issues and mood issues. So you can get much more specific with that.

If you were concerned about hyperpermeable gut, leaky gut, you could do zonulin testing, blood zonulin testing which is a nice marker for that. You could check lipopolysaccharide levels which tell us whether inflammation is coming from the gut from overgrowth of bacteria, which can trigger neurologic inflammation. And Cyrex has a panel for LPS (lipopolysaccharides) and zonulin and all those factors.

There's a lot that can be looked into. If I actually have this child in front of me, I would have more details. I'll be asking certain questions and getting more symptoms. But these are some things that come to mind.

I think we have another question from Anand.

Cyndi Athmanathan: Yes, we do. She goes on to say: "I have an annoying psoriasis patch on both shins that isn't going away." She says, "I do IF, eat clean and fermented foods. Any suggestions would be awesome."

Dr. Steven Sandberg-Lewis: So, I assume IF means *intermittent fasting* which is a really helpful thing. Fermented foods and a generally clean diet.

[02:10:03]

Dr. Steven Sandberg-Lewis: So, psoriasis is often a very deep-seated what we call in homeopathy *constitutional condition*. And it can be something that is more difficult to treat because you have to treat on a deeper level. I would definitely, if you haven't had homeopathic treatment, consider that with a competent homeopath. I've seen good results with psoriasis cases.

And other things to consider are an underlying yeast overgrowth which can sometimes really trigger and aggravate psoriasis. I've seen that be an issue. I've talked some about treatment for that.

And then, again, because psoriasis is an autoimmune condition, in standard medicine, it's often treated similarly to inflammatory bowel disease because they're both autoimmune conditions that their treatment involve suppressing some aspect of the immune system such as TNF-alpha (which is an inflammatory chemical made by certain white blood cells).

So, you can take a similar approach to the way you would treat ulcerative colitis or Crohn's with natural medicine—*Specific Carbohydrate Diet*, low dose naltrexone. I've seen low dose naltrexone be very helpful in psoriasis. Sometimes, it doesn't; sometimes, it does. But fish oil, getting the vitamin D into a normal range, all the things that I would normally consider for autoimmune conditions.

And the fact that psoriasis is on the shins or the front of the lower leg would also make me want to check the muscles of the lower leg. They can be related to the adrenal glands. There are muscle relationships to internal organs. And I would probably check all the muscles of the lower leg. Gastrocnemius is on the back of the leg, but I would probably check that one as well. I would check the tibialis posterior which is an adrenal-related muscle.

I remember, with adrenals, it's all about inflammation too and controlling inflammation, the balance of cortisol and DHEA. We know that prednisone and synthetic forms of cortisol are used to decrease inflammation in standard medicine. Balancing the DHEA-cortisol ratio naturally in your body can be very important for the same thing.

And there is some research using topical treatments for psoriasis as well, particularly aloe vera and some analogs of vitamin D and A. So those are some things I would mention.

Cyndi Athmanathan: Okay! One last question from Anne. She asks: "I'm beginning a new treatment protocol under Dr. Weinstock's direction with berberine complex and and AlliUltra. I am not as familiar with these two products as I am with others and would love to learn more about them.

Dr. Steven Sandberg-Lewis: I'm glad to hear that. Lenny Weinstock is a great, great person, a really good, open-minded MD gastroenterologist. I'm really glad to hear that he is using these herbs.

Dr. Siebecker and I started using these herbs about 10 years ago—berberine complex specifically to address the hydrogen, and AlliUltra or other extracts of allicin from garlic for methane. And then, I've been using them together when we're treating methane or a combined hydrogen + methane elevation.

So, our berberine complex is a mix of several herbs that contain the substance berberine. That is an excellent treatment for many cases of hydrogen SIBO. And berberine, because it's a complex herb—and this one actually has two or three forms of herbs that contain it, it makes it even more complex. Remember that berberine has often profound effects on blood sugar. It's used to treat diabetes. It's actually, I believe, the substance that they modeled Metformin, the prescription drug for diabetes, where they got the idea for that drug. And so, it does have the ability to lower blood sugar.

[02:15:45]

Dr. Steven Sandberg-Lewis: If you already have very low blood sugar, or if you're being treated for diabetes, taking a high dose of berberine-containing herbs might further lower your blood sugar. So keep that in mind. And we usually have people start it gradually. We usually use 9 or 10 capsules a day for the full dose. I'm happy to start with just three a day or six a day and work up slowly and make sure their blood sugar isn't changing too fast.

And in Chinese medicine and other forms of constitutional herb treatments, the berberine-containing herbs are considered to be very cooling. So if you're a person who's already very chilly or you live in a very cold environment, it's a good idea to add warming herbs like garlic to balance it out.

So, AlliUltra I believe is just another brand and type of allicin extract. It doesn't have the high FODMAPS fructans that are found in full garlic supplements and garlic cloves or garlic powder. It's just the allicin which is the antifungal/antibacterial part of the garlic. And so it can be used with people that need to stay on a more low FODMAPS diet.

These are very potent extracts of garlic and can really dramatically lower methane levels. Nothing works for everybody, but this one works quite well for a lot of methane cases.

I'm not sure what else to say. But again, start the berberine complex gradually—maybe just one three times a day. Test the water, see if you do well with it. And then, if you're doing okay, gradually increase until you get to the full dose.

The garlic AlliUltra, those types of products, are usually very well-tolerated. And most people don't need to work up on the dosage of those. Say hi to Dr. Weinstock for me the next time you see him!

[02:18:18]