Dr. Jill

Your Functional Medicine Expert®

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#126: Dr. Jill interviews Dr. Steven Sandberg-Lewis - Let's Be Real about Reflux

Text:

Dr. Jill 0:13

Okay, we are good to go. Welcome to another episode of Dr. Jill Live! I have someone I've always admired in the realm of gut issues, and today you're in for such a practical treat because we're going to talk about gastroesophageal reflux, GERD, and heartburn—what's the difference? We're going to dive deep with one of the experts and talk about his new book and some really practical things that should help you if you're one of those people who suffer from this. We'll talk about statistics in a minute. I'm assuming it's a lot because I see it nearly every day in my clinic.

Dr. Jill 0:45

If you have not caught other episodes, you can find all of my episodes on YouTube on my channel, and on iTunes under 'Dr. Jill Live' or anywhere you listen to podcasts. Hopefully, you can check all those out. We've got over 100 interviews. Today my guest is Dr. Steven Sandberg-Lewis. He's been practicing as a naturopathic physician since his graduation from the National University of Natural Medicine in 1978. He's been a clinical and didactic professor since 1996, teaching a variety of courses primarily focusing on gastroenterology and GI physical medicine.

Dr. Jill 1:17

I'll just say a little side note here: Dr. Sandberg, you were one of the first people that I really dove into SIBO (small intestinal bacterial overgrowth) with, and it was really amazing to get all the data that you're presenting because it helped change my practice and my ability to treat patients. You've already impacted me personally, and I'm very grateful for the way you teach and share all of your knowledge.

Dr. Jill 1:39

He is a popular international lecturer at functional medicine seminars, presents webinars, and is frequently interviewed about SIBO. In 2010, he co-founded the SIBO Center at NUNM, which is one of the only four centers in the U.S. for small

intestinal bacterial overgrowth treatment, education, and research. He's the author of the medical textbook on functional gastroenterology. He's currently in the editing phase of Let's Be Real About Reflux. We're going to talk about that book today, and it is going to be coming out at the end of this year or early next year, so you will be able to get your copy of everything detailed about that. He lives in Portland, Oregon. I could say so much more, but welcome, Dr. Sandberg-Lewis. I'm so glad to have you here!

Dr. Steven Sandberg-Lewis 2:17

I'm glad to be here.

Dr. Jill 2:18

Thank you. So let's start. You didn't ask me this question, but what about statistics? How many people suffer from GERD or heartburn?—because it's common from my perspective. But I'd love to know, really, how often you see it or how often it's there.

Dr. Steven Sandberg-Lewis 2:33

I think we all see it often, but according to statistics, up to 30% of Americans have it at least once a week.

Dr. Jill 2:43

So it's super common. One in three—not surprising at all. Now, just for fun, do you know how that compares to small intestinal bacterial overgrowth? What percentage of people suffer from those kinds of symptoms?

Dr. Steven Sandberg-Lewis 2:54

Yes. Different statistics say 10% to 20% of the population has IBS, and up to 75% of them have SIBO as the cause of their IBS—about 30 million Americans. What would it come out [to]? It depends. Somewhere between 8% and 16%.

Dr. Jill 3:21

Yes, it's no surprise. I think I saw this statistic when I was studying SIBO and IBS and the connections, years ago. About one in three visits to primary care doctors involves either reflux or symptoms of IBS, which is all the stuff we're talking about. And there can be a connection there too; we'll dive into that. Let's talk first about just the GI tract in general, with just a little bit of an anatomy lesson on the pH and how this works, so that we can talk and dive deeper about symptoms.

Dr. Steven Sandberg-Lewis 3:51

Yes. So am I talking to both doctors and patients here?

Dr. Jill 3:56

Yes. We have probably 80% of consumers and patients, and then another 20% of doctors.

Dr. Steven Sandberg-Lewis 4:01

Okay. So the interesting thing is that many times—and you've probably heard this—patients come in and say, "I know I'm way too acid" or "I know I'm way too alkaline." To me, that's a weird statement because in the GI tract, it keeps switching. Saliva [has a] pH [of] 7 to 7.5, [which is] mildly alkaline. That's good because as you swallow every minute and you swallow throughout the day, it's a total of 1 to 1.5 liters of saliva being swallowed in a day. That bathes the esophagus with slightly alkaline secretions that help to buffer any acid that might come up from the stomach. But then, when you get to the stomach, you drop to a pH of less than 2, sometimes slightly less than 1.

Dr. Steven Sandberg-Lewis 4:56

Then you move into the duodenum, [where] you go up to a pH of 6.5 to 7.5, sometimes 8. It's very important to have that pH so that the pancreatic enzymes will work because they have a very narrow PH range. Then you get into the colon, and with the short-chain fatty acids being produced by the huge numbers of bacteria there, you have an acid pH like 5.8 to 6.8 or something like that. So it just keeps changing and it's alternating, alkaline-acid, alkaline-acid. To me, that feels like yin and yang—the supreme pole of balance.

Dr. Jill 5:43

It's fascinating and fascinating how it changes. So what are the different types of reflux? What might we see, and where are they?—you know, the cause.

Dr. Steven Sandberg-Lewis 5:51

Well, there are three main kinds of reflux, starting at the top gastroesophageal—reflux from the stomach into the lower esophagus—that's what most people think of as reflux. They don't think about the other two types. The next one moving down is reflux from the small intestine through the pyloric valve into

the stomach—that's called bile reflux. There's more to it than just bile, though, of course, because there's undigested food, partially digested food, and enzymes from the pancreas as well as the bile. The third type of reflux is cecoileal reflux—reflux from the large intestine, the cecum, through the ileocecal valve into the terminal ileum, the last part of the small intestine. That's one that we generally like to call 'ileocecal valve syndrome.' So those are the three main valves that reflux in the gut.

Dr. Jill 6:56

It's interesting because, like you said, most people are thinking of the first one and not really thinking of the others. Is it true that the ileocecal valve is a protection against SIBO, and then that could be one of the causes of the excess bacteria in the small bowel?

Dr. Steven Sandberg-Lewis 7:10

Yes. It's an important way to divide the billions of bacteria per gram in the large intestine from the thousands in the small intestine.

Dr. Jill 7:25

Yes. I always say it's like the bacteria go up and have a party in a place they have no business being. It's like [there's] too much in the wrong location. So what causes heartburn besides reflux? What are some other causes of the actual physical sensation when people say 'heartburn'? And is there an actual definition of heartburn? How is that defined?

Dr. Steven Sandberg-Lewis 7:43

Heartburn is really just the sensation of burning or heat below the sternum—substernal. So it's easy to just assume that that's due to reflux from the stomach, but it can also be caused by some of the more common things. The first one is called functional heartburn. There's no real reflux occurring, but the heartburn is there. No one's totally figured out exactly why that happens; perhaps the most compelling thing is what's called sustained esophageal contractions. The esophagus has its normal motility that moves things down like a chain of sausages when you swallow something—that's called primary peristalsis. But if you get some reflux or if the food gets stuck and doesn't go all the way down, you have secondary peristalsis that will trigger more contractions.

Dr. Steven Sandberg-Lewis 8:48

And then there's a third type, sustained contractions, which can be more intense. They're abnormal; they always cause pain. So some people have that, [what's] called tertiary contractions, and the sustained tightness that occurs. That can cause either burning or it can cause a feeling like a chest pain. The same thing is true of distension of the esophagus. So if you eat too much or if you produce too much gas in your stomach, that [gas] comes up into your lower esophagus, and that distension of the esophagus can be perceived as either chest pain or burning.

Dr. Steven Sandberg-Lewis 9:30

[With] Functional heartburn, there's no reflux happening; there might be gas coming up, or there might just be muscles causing pain. There's also something called the globus phenomenon, which you all know about. That's a sensation of a ball or fullness in the throat. Sometimes that gets mistaken, and everything gets called GERD. And then there's also a condition called reflux hypersensitivity. Reflux from the stomach to the small intestine is a normal phenomenon. In the physiology books, it happens about three times after every meal. You're going to get some reflux, but we don't put the 'D' on the end and call it GERD; we just call it GER—gastroesophageal reflux—because it's a physiologically normal phenomenon. Usually, that gets buffered by the saliva, prostaglandins, and other beneficial protective factors in the esophagus, and the secondary contractions move it back down into the stomach. So normally, you don't perceive it; you don't know it's there.

Dr. Jill 10:44

Is this maybe why we have that alkaline esophagus because it's like the buffer? If there is a little bit of reflux right there, it's immediately alkalinized or increased in pH, or the mucosal lining probably helps as well, right?—that little bit of lining. You know better.

Dr. Steven Sandberg-Lewis 11:01

Right. And there's a little bit of a mucous layer, which has some bicarbonate in it as well. But I just want to point out that this is one of the reasons why people with Sjogren's syndrome can have such terrible heartburn because they don't have saliva to bathe their esophagus.

Dr. Jill 11:18

Okay. This is fascinating because, as you're talking, I have a question for you, personally. [For] years and years, I swallowed handfuls of pills [with] no problem, [but] over the last maybe four or five years, sometimes those will get stuck in my throat. Now, granted, I probably shouldn't be swallowing 40 pills at once, but I've

never had heartburn. I don't have any esophageal issues that I know of. My question to you is—I wonder [about] what happens with age, I'm over 40—is there anything with age that would make that more difficult? But then you mentioned Sjogren's, and actually, I don't have severe Sjogren's, but I have a little antibody inkling—I tend to have dry eyes and a dry mouth. Would you say that could be really common if I have the early onset or early bits of Sjogren's? That might be the reason why the pills get, more likely, stuck in my throat than they used to.

Dr. Steven Sandberg-Lewis 12:00

It definitely could be the cause.

Dr. Jill 12:02

Interesting. It's so fascinating. We talked about the physiological reflux that usually isn't damaging and maybe doesn't even cause symptoms. But how do people end up getting esophagitis? What happens there, and what are some of those causes?

Dr. Steven Sandberg-Lewis 12:15

Yes. So when you mentioned that physiological reflux doesn't cause any damage, even acid reflux may not cause any damage. So that's what we call NERD—non-erosive reflux disease. That's a good 50%, some say 60%, of people who have an upper endoscopy and have symptoms of heartburn, will have NERD, meaning they have enough protection in their esophagus from reflux that they don't develop esophagitis. They don't develop reflux esophagitis. These are people who don't respond to standard acid-blocking treatments. First of all, they don't necessarily have reflux, or if they do, it's alkaline or weakly acidic. So making their reflux less acidic really doesn't make a whole lot of difference; in fact, it might make it worse.

Dr. Jill 13:20

So this is interesting because, again, clinically, I have some people who respond to betaine HCL, which puts more acid in the stomach when their reflux is severe. And it takes it away. Do you want to tell [us] why that might work for some people?

Dr. Steven Sandberg-Lewis 13:32

Yes. I have the Heidelberg machine in my office—some doctors have it—and we can directly measure the pH of the stomach. This is different from the pH impedance test that's done by gastroenterologists that measure the pH of the lower esophagus; it's measuring the pH of the stomach—this test that we do. I find that about 20% of

the people that I test who have heartburn have too much acid, another 20% to 30% make normal amounts of acid, and then the other 50% to 60% make too little.

Dr. Steven Sandberg-Lewis 14:18

During the test, when we find that their acid levels are too low and the pH is too low, we can actually give them either bitters (bitter herbs) or retain hydrochloride during the test. We get a real-time reading of how that works to bring down their pH. I just did one a week ago. Just when we gave him some bicarbonate, it neutralized his pH, and it was flat for 25–30 minutes. It was not going to come down. Usually, the stomach's parietal cells will make more acid and bring it back down. I gave him some bitters. It did this little thing for about 10 minutes; it hardly moved at all. Often that can bring it down a couple of points, but I gave him one betaine hydrochloride capsule, and nothing happened for about three minutes, and then it went right back down to where you want it at, a pH of 1.8. So you can actually test it and see if it's going to work for them.

Dr. Jill 15:21

Gosh, if everybody had you to go to see... This is amazing! They can probably read your book and get some information to help them share with their doctors because this is so important. It fits clinically. You're actually saying that more people have too little stomach acid than too much.

Dr. Steven Sandberg-Lewis 15:40

Yes, and more people that have an upper endoscopy are found to have no erosive esophagitis, NERD, rather than erosive esophagitis, which has grades A through D severity. You were asking: What are the different types of reflux? So NERD, erosive esophagitis, and then the third one we really should talk about is Barrett's esophagus, and that's with chronic reflux and metaplastic changes in the lining cells. The esophagus is sort of looking for, "Hey, is there a better cell to protect me against all this reflux, this burning?" So it changes to a more intestinal type of cell—intestinal metaplasia. The problem with that, of course, is that if it's more than 3 cm long, called 'long segment Barrett's,' it does carry a slightly increased risk of developing dysplasia and then esophageal cancer, and that's especially true in men rather than women.

Dr. Jill 16:50

Let's briefly talk about that because there are clearly high-risk and low-risk Barrett's. What would be the big red flag—risk factors—if someone has these dysplastic cells that are greater than three inches? Or maybe three inches [in]

male[s] [rather] than female[s]. But would there be some things that we'd say, "These persons are at a higher risk, and these are [at a] lower" [risk] with Barrett's itself?

Dr. Steven Sandberg-Lewis 17:09

Yes, the metaplastic cells rather than dysplastic [cells]. Dysplastic would be the next step.

Dr. Jill 17:15

Okay, so it's meta[plastic], dysplastic, and then cancerous, okay.

Dr. Steven Sandberg-Lewis 17:19

Right.

Dr. Jill 17:19

Thank you.

Dr. Steven Sandberg-Lewis 12:15

And that's why they monitor with repeated upper endoscopies—especially men—if they're overweight, if they smoke, or if they have diabetes, because their risk of developing that cancer is greater. I'm sorry the question was?

Dr. Jill 17:41

That was it; the higher risk factors for someone who has Barrett's because I know that there's a little bit more risk—

Dr. Steven Sandberg-Lewis 17:44

Oh, yes. So the risk factors are being male, being Caucasian, being over 60 years old, having diabetes, having increased abdominal fat, and [having] a history of smoking. Alcohol doesn't help a whole lot either, but it's not as major an effect.

Dr. Jill 18:07

Okay. And I've seen a lot more in the literature where if it's low grade or smaller distance… Just a lower risk, what would be the lower risk for Barrett's?

Dr. Steven Sandberg-Lewis 18:21

Yes. The least risk is when it's what's called a 'short segment,' meaning it's 1 to 3 cm—it's less than 3 cm long—the area that has shifted to metaplastic change. Sometimes you'll read a report and it'll say 1 cm, and you'll think that's all right, especially if the person is female. I went to a conference three years ago at the Mayo Clinic training on the esophagus—a whole weekend on the esophagus—nerding out on the esophagus. That's when I learned for the first time that women don't even need to be screened. Once they find out that they have Barrett's, they don't get retested, and they don't get monitored because the risk of them developing dysplasia or cancer of the esophagus is so low, they don't even do that. But the even better news is that there's a new thing—it's not new in Europe, but it's going to be new to us—called the Cytosponge.

Dr. Jill 19:28

Yes, I wanted to ask you about that.

Dr. Steven Sandberg-Lewis 19:31

Yes. So the Cytosponge—three different companies are making it, and it hasn't quite come to market yet, but it will very soon. It's just like the little kids' toys that you can buy that are a capsule that has a sponge that's shaped like a dinosaur inside, but instead of that, the sponge is just kind of a round globe, and it's not really dense, but it's a sponge that will open up. It has a string, so you swallow it, and the string hangs out of your mouth so that the capsule goes into your stomach and then dissolves in a few minutes. The sponge opens up; it's only about the size of that [makes the shape of a circle with the index finger and thumb] and then it gets pulled up, and just like a Pap test, it exfoliates the cells, which can then be sent to the pathologist. They can look at it under the microscope for the cellular structure, and they can also check for DNA adducts that are common in dysplasia and carcinoma.

Dr. Jill 20:33

Wow. That sounds so amazing and brilliant—the design. It makes perfect sense. How did we not think of this sooner? I'm super excited about that because years ago when I was in medical school—20 years plus [ago]—Barrett's was like this death sentence, and you had to be on PPIs. A lot of people really didn't meet the high-risk category [and] were stuck on PPIs for life or something. I love that there's differentiation now for those patients. So let's talk about reflux treatments. What are some common treatments [and] some less common [ones]? Where do we go with the treatment of this disorder? Let's go in that direction.

Dr. Steven Sandberg-Lewis 21:09

So of course, to me, the most important treatment is treating the cause if you know the cause and have a treatment for it, and we have a lot of things like that. So it depends on the cause. What I did in my chapter [on] treatments is I based it on the underlying cause, whether it's hiatal hernia, whether it's sustained contractions, whether it's delayed gastric emptying, whether it's a lower esophageal sphincter (LES) that has poor tone, or a diaphragm that has a poor tone that relates to the LES. I set it up that way, and that's the way I think of it.

Dr. Steven Sandberg-Lewis 21:55

Certainly, if a patient has a sliding hiatal hernia, that's something that could be manually corrected. And then we teach them how to strengthen their diaphragm, to help keep it in place, and their abdominal muscles. And we teach them to avoid holding their breath and creating a Valsalva maneuver when they lift something heavy, if they bear down to have a bowel movement, if they sit up from lying down, or [if they] do some kind of core exercise. It's nice if your patient does core exercises [so you can] ask them, "Show me how you do them." See if they're grunting while they're doing it or [if] they're breathing because when you hold your breath and get a Valsalva maneuver like that, of course, it increases intra-abdominal pressure, which then tends to push the stomach up or any hernia out. So that's important.

Dr. Jill 22:52

And can they learn to manually manipulate themselves, or is it like a visceral physical therapist that would teach them?

Dr. Steven Sandberg-Lewis 23:02

I learned, in 1977, an old chiropractic technique that I used until about 14 or 15 years ago. After studying structural integration, I made a different technique that's not as chiropractic in terms of force; it's much more gentle. But there are lots of techniques out there, and anyone who does Barral therapy knows a very similar, very gentle technique. In my textbook, I have a little chapter on that and I show how to do the correct [inaudible] physicians. That's one thing—that's an important thing. For some people, it's all about strengthening their diaphragm by doing diaphragmatic breathing, loud singing, [or] any kind of diaphragmatic exercise.

Dr. Steven Sandberg-Lewis 23:54

By the way, remember that if someone gets reflux after they got very constipated, say they say, "I went on a trip and I didn't want to go into that outhouse out there in Indonesia and I didn't have a bowel movement for three weeks, [and] ever since then… " that's because they got so constipated that they were creating this Valsalva maneuver, raising their intra-abdominal pressure, and causing their hiatal hernia to pop up. Or [it can happen] after birth—delivering a baby, when you're turning blue in the face and [inaudible]. So that's one.

Dr. Steven Sandberg-Lewis 24:39

If your problem is too little acid, hypochlorhydria, there are lots of nice treatments for that, whether it's betaine hydrochloride or vinegar before meals, one or two teaspoons in water, or bitter herbs. And of course, with any of these things, I like to investigate how well the vagus nerve is working by looking at their palatal rise when they say 'ah.' If this is the uvula hanging down and these are the palatal arches, the tongue down here, when the person says 'ah,' you want to see 'ah,' 'ah,' 'ah,' [lifting hands higher vertically with each sound] like that. You don't want to see 'ah' or 'ah' [lifting hands on a slant], and you don't want to see 'ah' [barely lifting hands]—that kind of thing. That sluggish palatal rise is a sign that the vagus nerve isn't firing properly, and then you're never going to get the digestion right. So there are lots of good exercises to tone that.

Dr. Steven Sandberg-Lewis 25:37

If the person actually makes too much acid, the treatments are different. Probably melatonin is going to be a really important piece there because melatonin has been shown to help protect the lower esophagus from bile, acid, and pepsin. They've done studies in rats where they actually drip bile, pepsin, and acid into their lower esophagus for two hours at a time. One group gets melatonin first, and the other group doesn't; the melatonin group is protected from the erosive esophagitis that develops. [There are] lots of other things that you can do to help protect—

Dr. Jill 26:22

And on melatonin—let's just pause there—there's such a range of doses, physiologically, from 0.2 to 20. What kind of dose would you maybe start someone on who was trying melatonin for that?

Dr. Steven Sandberg-Lewis 26:33

Unless they're one of those people that really responds great to 1 mg or 0.5 mg, usually somewhere between 3 and 6 [mg]. And remember, melatonin is part of that GI clock, so the light and dark sequences in our environment trigger melatonin

excess during the night. I like to tell patients, "Melatonin puts your digestive tract to bed." And then serotonin and motilin do the work during the day. But there's this really important piece: If someone works the graveyard shift, or if they have really bright lights like we have on right now but after the sun goes down every night, or if they're working on a computer that's turned up totally bright right until they go to sleep, or if they're flicking their phone in bed, that's really going to affect their GI clock. So there are so many ways to mess up your digestion.

Dr. Jill 27:39

Yes. I'm a huge fan of telling people, after 7 P.M. or so, do red lights only. I mean, granted, you could have the household lights if they're not full spectrum, but those bright lights and the screens really do affect not only the quality of our sleep, [but also] our deep sleep, our gut physiology, and everything. It's so important to mention that.

Dr. Steven Sandberg-Lewis 27:59

I could go into a bunch of other treatments, but I don't know how much you want to go into it.

Dr. Jill 28:03

I do, and I want to talk about lifestyle things. Conventionally, they're given a PPI, which is not wrong, but you said 20% to 30% is excessive acid and the rest are other causes. Obviously, you have a clinic where you can diagnose and say exactly what's going on. The average physician maybe doesn't have that. Is it still worth the trial of PPI, or how do you feel about that? Are there other things that should be done first?

Dr. Steven Sandberg-Lewis 28:27

According to a study that was done, a PPI trial is the wrong treatment about 37% of the time, [or] about a third of the time. I guess that's a good test because if you looked at the research and they said, "This test works 66% of the time," you know, "63% of the time," [one might say], "Oh, that's a pretty good test," but I like to be a little more educated about it. But that's what most physicians are going to do—a PPI trial. I guess there's no harm in that because if you do it for a short period of time and you get a dramatic night and day change in your heartburn [where] it's gone, that's pretty good information. If you get no change, that's pretty good information. And if you get worse than that, to me, that's pretty good information too. They probably have NERD, functional heartburn, or some other condition going on. So yes, a PPI trial—

Dr. Jill 29:40

[Inaudible] it makes sense in some ways.

Dr. Steven Sandberg-Lewis 29:42

Yes. I kind of think of a PPI trial as sort of a test as opposed to, "Oh, we're going to give you this, and then you'll just stay on it—if it helps you—forever." By the way, turmeric (curcumin) is a big one too for protecting the esophagus. In fact, there's good research that shows that it can be used to help normalize the metaplasia in the lower esophagus [in people] with Barrett's.

Dr. Jill 30:10

Ah, now that's interesting, because I do the same thing with HPV in women. It's totally different, but it's metaplasia/dysplasia in a woman. We use turmeric in the same way; we use it topically. So it makes sense on all these layers on the mucosal lining.

Dr. Steven Sandberg-Lewis 30:22

Yes. And if turmeric is poorly absorbed from the gut, all the better, because if they reflux it back into their lower esophagus four or five times before it leaves the stomach, they're getting a lot of bathing there.

Dr. Jill 30:37

Yes, wow. I love that. Say we have a person who does respond to PPIs, and we don't want them on [them for a] lifetime. What other lifestyle [changes] or natural treatments would you do for the person with high stomach acid? And then maybe let's go to the other types of reflux as well.

Dr. Steven Sandberg-Lewis 30:53

With high stomach acid, you might consider an H2 receptor antagonist if it's needed—nowadays mostly famotidine. You also would consider DGL because if you reflux the DGL, that has been shown to protect the esophagus 2 against damage—against reflux esophagitis. Again, the interesting thing about reflux is that it moves the medicine up from the stomach into the lower esophagus, where you want it, so it works nicely that way.

Dr. Steven Sandberg-Lewis 31:35

Also, if they end up having Barrett's and have too much acid, you also have vitamin C, vitamin A, and zinc, especially carnosine, [as options]. Aloe vera has been shown to be a helpful demulcent as well as the DGL, but curcumin, or turmeric, is a big one, and selenium has shown some benefit as well at normalizing it. But again, if they have a hiatal hernia, you're going to correct that. If they have poor lower esophageal sphincter tone, you're going to work on that. If they have gastroparesis or delayed gastric emptying, you're going to help the stomach empty properly; if you have a full bag of food and liquid, it's much more likely to go up the top if it can't come out the bottom.

Dr. Jill 32:31

Let's talk about gastroparesis just briefly. I've used a German product called Iberogast—I love that one. What other things would you use for gastroparesis?—because I see that a lot with chronic infections and things that affect the vagus nerve. What would your general approach be to gastroparesis in [terms of] lifestyle and natural approaches?

Dr. Steven Sandberg-Lewis 32:50

Yes. Iberogast is great. In fact, it was compared to metoclopramide—a kind of dangerous [inaudible]—and it worked just as well in one trial. In other trials, it worked slightly less well, but I certainly find [this one to be] a good one. Ginger is probably the simplest prokinetic, whether it's in tea, capsules, or food. That's why it helps with nausea because it helps the stomach empty sooner—[it's] one of the reasons.

Dr. Steven Sandberg-Lewis 33:29

Other things to consider are other prokinetics, besides those two things that help the stomach empty. The prescription one, of course, is erythromycin at 50 mg potency—standard erythromycin, which isn't used much anymore; azithromycin is used instead. But standard erythromycin is a 250 mg tablet. So we either have the patient cut the tablet into four parts with a pill cutter and take a quarter of a tablet at bedtime, sometimes also before meals. It's a motilin receptor agonist, so it actually helps that whole migrating motor complex, emptying the stomach and moving things through the small intestine, decongesting the upper GI tract. That's a good one. There's also a combination of ginger with artichoke, one particular product that several companies make now, and that's perhaps a little bit more effective than just ginger by itself.

Dr. Jill 34:33

I've just started using that, and I really like [it] because, like you said, a couple of companies make that, and [I've] had real good results besides just ginger. So I love that. Just one thought that I've seen used before and I've used before, much more with the migrating motor complex lower when there's SIBO, but any thoughts on low-dose naltrexone? Could that help in this case? Do you think there's any place for that?

Dr. Steven Sandberg-Lewis 34:54

Yes. Low-dose naltrexone definitely seems to have at least a mild prokinetic activity. I tend to use it together with another prokinetic herbal or prescription when someone has post-infectious IBS, other autoimmune causes of gastroparesis, or something like that. You can test for post-infectious IBS with the IBS smart test. That measures the antibodies that come on with infectious diarrhea and other food poisonings, and see if a person is carrying that sort of autoimmune response that's causing their post-infectious IBS. I tend to use LDN fish oil, get their vitamin D into a normal range, and then also use a prokinetic, whether it be herbal or prescription. By the way, prucalopride is a wonderful prokinetic as well.

Dr. Jill 35:54

I totally agree. That's my favorite when everything else fails; prucalopride it is, and it really, really works. One side note here, because we're obviously using proton pump inhibitors and histamine blockers. I have seen the connection when someone has mold exposure or mast cell activation, where histamine is a big trigger. How does that fit into what you're talking about—histamine as a cause or as a part of everything else we said? Once in a while, I'll see people who go into a moldy environment, and the one symptom they have is heartburn because of that histamine. Any thoughts on the histamine connection?

Dr. Steven Sandberg-Lewis 36:27

Yes. As I was finishing my book, I was thinking I should put a chapter in on histamine but in the next version, next edition I'll do that. But it makes total sense since there are histamine H2 receptors on the parietal cell that trigger acid production. There are three different triggers: Acetylcholine, gastrin, or histamine. So if histamine can trigger acid production, why wouldn't it be a risk factor for reflux in some people who especially have histidelia or mast cell activation that just sets off at very little provocation?

Dr. Jill 37:12

Wow. I love that because you just explained it. I knew this happened, but I wasn't sure of the 'why.' You just put in line—exactly why that happens—so that's super helpful.

Dr. Steven Sandberg-Lewis 37:20

Also, I should just mention that there are several articles that really prove that reflux isn't just a burn—it's not an acid burn or an alkaline burn—but what it really is is an inflammatory response to those secretions. Maybe that could explain why you could have heartburn even though you have no erosion or anything, but there's a mild, at least subcellular, inflammatory response or maybe even a cellular, notable inflammatory response with erosion. There's good evidence—turmeric is really good at reducing TNF alpha and Interleukin-1β. So if it could really calm down the inflammation, it could work on that as well.

Dr. Jill 38:18

Interesting! Then that makes me think about quercetin, Chinese skull cap, or some of these kinds of mast cell [stabilizers]. I wonder—they probably play a little role too for those people who are histamine driven. Let's kind of end with the lifestyle part, like food and lifestyle things that are a little bit more practical for day-to-day [life] or what people could do. And again, it probably depends on the cause, but do you want to go through a little bit of the lifestyle things people could put in place to maybe reduce their risk of heartburn?

Dr. Steven Sandberg-Lewis 38:41

Yes. And I should say that again, the Townsend newsletter, the journal that came out—

Dr. Jill 38:48

Let me hold that up because I just got this and I literally pulled it out, so if you follow Townsend... I was like, "I know I have an interview next week," and I got it in the mail last week, so it was perfect timing.

Dr. Steven Sandberg-Lewis 39:01

We didn't plan that.

Dr. Jill 39:03

No, not at all!

Dr. Steven Sandberg-Lewis 39:06

What I did was sneak peek a chapter that I thought was one of the most amazing chapters, and that's the one on lifestyle. So it's in there—the whole chapter is in there. But I created a mnemonic, which is called 'reduce carbs, reduce reflux.' So carbs, C-A-R-B-S, is a mnemonic for the factors. 'C' stands for 'cigarettes,' 'coffee,' 'chocolate,' and 'cola' or other soda drinks. This doesn't mean that every person has to cut out all of these things, but any one of those things could be an issue, and I talk more about the details in the chapter and the research behind it.

Dr. Steven Sandberg-Lewis 39:57

'A'—we're on CARBS—is for 'alcohol' which could be a factor for a lot of people, 'aspirin' and other non-steroidal anti-inflammatory drugs, and 'acids' because for some people, acidic foods are a factor. 'R' in CARBS is for 'refined carbohydrates,' but really it's about too much carbohydrate in general—any type, even if it's unrefined. 'R' is also for 'Rx' or prescriptions, because there's a whole giant list of prescriptions that either aggravate reflux or can cause it. And then also, 'R' is for 'rapid eating'—shoveling your food—triggering a fight or flight response when you really need a rest and digest parasympathetic response. 'B' in CARBS is for 'big meals,' so overeating, which is really going to be a negative factor if you have delayed gastric emptying, 'big waist circumference', so people who have apple fat have an increased risk of reflux; that's been well proven, and that's true like I said with Barrett's as well. And I also used 'B' for 'bedtime eating,' so eating within three hours of lying down to go to sleep is a big factor.

Dr. Steven Sandberg-Lewis 41:32

'S,' the last one in CARBS, is for 'snacking.' And that was really interesting: The research shows snacking either helps or hinders reflux, and I think it depends on what you snack on and how much you eat during the snack. The second 'S' is 'sleep position,' and sleeping on the left side is the best position because it puts the stomach in this kind of position instead of this kind of position [showing position with hands], which can dump into the esophagus. So sleeping on the right is the worst, and sleeping with a wedge so that you're elevated or putting something under the feet of the headboard to raise the top of the bed is definitely proven to reduce reflux. And then 'S' also stands for 'spicy food,' which also goes both ways. Some studies found that regular use of cayenne and other chili peppers actually reduced reflux if you used them a little bit all the time, but occasional use of certain spices can increase reflux, and I think that really depends on the person and the spice. And then the last one would be 'specific foods.' People can have food

sensitivities and intolerances. One of the symptoms they can cause is reflux or heartburn.

Dr. Jill 43:05

[It's] super practical. I love the acronym, and it includes so many things, it's easy to remember. And that's in the chapter of your book, Let's Be Real About Reflux?

Dr. Steven Sandberg-Lewis 43:14

[It's] in a chapter of the book and in the Townsend article.

Dr. Jill 43:16

Yes. And I'll be sure to link these all up. What a wonderful wealth of information! We have covered so much. Where can people get a copy of your book? You said it's going to be out either at the end of December or early January. Where can people find you and find your book?

Dr. Steven Sandberg-Lewis 43:32

Yes. So I'm at Hive Mind Medicine. You can look at our website, www.hmmpdx.com. I have blog posts and lots of information there. Actually, if you put 'Steven Sandberg-Lewis' in Google, you'll find me because I have a lot of hits. In terms of the book, [it] will be available through Amazon and all major booksellers if you go online—from any major bookseller, you'll be able to find it. [The book is called] Let's Be Real About Reflux: Getting to the Heart of Heartburn.

Dr. Jill 44:13

Fantastic. It's such a wealth of knowledge. Thank you for all the wonderful research, knowledge, and information you bring to our field. Thank you for your time today; I greatly, greatly appreciate all that you shared.