Podcast Intro and Guest Introduction

This always surprises me is not linking the neuropsychiatric component and the cognitive decline in kids, especially with an abrupt onset, but even adults, again, abrupt being like the key word, you know, and it's like they're getting diagnosed with like primary psychiatric disorders, mood-effective disorders, you name it.

So that to me is always, I think one of the most compelling symptoms, but I have patients that come in literally with head-to-toe symptoms. Welcome to the TBD Fit Podcast on Dr.

Talks. I'm your host, Daniel Keeley, and I will be guiding you through this wellness journey in terms of optimizing health and longevity, where we unpack the science, the do's, the don'ts.

and everything in between. Come join us. Look forward to seeing you inside. Welcome to the TBD fit podcast where we uncover the science, the stories and strategies to help you move toward optimal health.

I'm your host, Dr. Daniel Keeling. Today, we're going to dive deep into one of the most probably misunderstood and misdiagnosed conditions, which is chronic Lyme and co-infections.

Joining me today is Dr. Mariah Hinchy, who is a leading naturopathic physician who's dedicated her career to helping patients unravel complex, stealth infections that Frankly, conventional medicine often overlooks.

So from mold exposure to barnell and babesia to the hidden road box and detoxification, Dr. Hinchey's approach blends cutting edge diagnostics with integrative whole body care.

And we are cut from the same cloth. So I'm super excited to have her as a guest today. If you've ever felt dismissed, undiagnosed or kind of at a loss for answer, this episode is certainly for you.

So welcome to the show. Thanks for having me. It's an honor to join you. Absolutely. And so I love starting each conversation is just getting to know you better and kind of your history, the catalyst or why you got into what you do.

Lyme Diagnosis and Testing Challenges

Sure. So I guess being an atropathic doctor as you are and being trained to identify and correct the underlying cause to illness. You know, for me being kind of here at ground zero in Connecticut for Lyme and vector borne diseases, when I started looking, I was often finding it.

You know, it is a pro-inflammatory immune system wrecking infection. And so when you have all of these other complex chronic illnesses that at their heart is immune dysfunction and inflammation, you often find Lyme, Babesia, Bartonella, Mycoplasma, Anaplasma, Ehrlichia, Rickettsia, etc.

The whole soup. The whole tech soup. Of wonderful pathogens. Uh, in terms of, cause you said when you, when you're looking for it, you're finding it. So perhaps what, what are some of the tests that you use that, um, that helped you uncover this?

Yeah, so I mean, first I should say, just to make it clear, like the diagnosis of Lyme and other vector-borne diseases is a clinical diagnosis. So testing is helpful to make that clinical diagnosis, but really we cannot rely on testing alone.

And that's one of the reasons why Lyme is so often misdiagnosed. or underdiagnosed. But when it comes to testing, there are conventional tests that you would do through, let's say, Quest or LabCorp.

And then there are specialty testing that you could do through more sophisticated labs like IGENIX, Galaxy Diagnostics, and Vibrant America. I would say those are my top three tests or labs for testing for vector-borne disease.

The reason why conventional labs aren't great is because they're not looking at all of the species of Borrelia. So Borrelia is the name of the bacteria that causes Lyme.

Borrelia burgdifori is the species of Borrelia that was found and isolated in 1975 in Lyme, Connecticut. And so when you are using one of these conventional labs and they are testing you for Lyme disease, they are pretty much just looking for the presence of Borrelia burgdorferi.

So there are a handful of other species of Borrelia that also cause Lyme disease. So we cannot rule out a whole category of infection by just looking at one species.

That's like me using the analogy of, you know, hey, I'm going to test you for an apple, but I'm going to use a test that's so specific that it only detects a Granny Smith apple.

So if you are holding a red delicious apple and I can see you holding it, I'm going to tell you, nope, you don't have an apple because it's not a Granny Smith.

And common sense just says that that's wrong, right? How often are you finding false positives or false negatives? You know, I really don't believe in false positives, and we can get into that later, but false negatives are often seen.

There's a multitude of other reasons why a false negative might occur. Most of the tests that are used to evaluate for Lyme disease are what's called an indirect test.

And so it's looking at antibody production to the organism instead of just testing for the organism itself. And so what happens is like, let's say you had a tick bite and you go to your doctor and you get tested within the first one to two weeks.

Typically, there hasn't been enough time for your body to produce the IgM antibodies in an amount that would actually make your test show you were reactive.

So a lot of these false negatives will occur when the testing has been done too soon, too close to the tick bite. Or in the example of someone that has chronic Lyme disease, the way that the pro-inflammatory cytokines affect the T helper cells can really affect the immune system's ability to actually make antibodies against this infection.

And then we can miss the infection on a test because of the skewed antibody production. Yeah, that completely makes sense. I mean, people are stuck in this TH2 dominant state, right?

With cancer and certainly autoimmune issues. So again, the problem is the antibody titers peak weeks after infection, it sounds like, right? So detection sometimes becomes difficult.

Correct. In terms of, so you mentioned one with lime, what about the others? There's this whole other category of Borrelia that caused something very similar to lime.

In fact, a lot of people just consider it to be a type of lime, but it's technically called tick-borne relapsing.

Symptoms, Neuropsychiatric Effects, and Misdiagnosis

fever. If you aren't looking for those particular species of Borrelia, you're going to miss it. Then we have Babesia, and there's multiple species of Babesia.

There's Bartonella, and there's actually something like 56 species of Bartonella. There's a couple handfuls that can infect humans as well, but we don't even have the capacity to test for all of those species and the crazy thing is, is

like, you know, everyone's falling back on the, you know, did you have a tick bite?

Did you get a rash? Did you see the tick? And Bartonella, even though it is transmitted by ticks, is actually more commonly transmitted by mites, biting flies, fleas, you know, lice, things like that.

So You know, there's just so much misinformation out there, you know, as far as how a lot of this stuff is transmitted and then how to actually detect and diagnose it.

Yeah. In terms of Bartonella, I think there's a 6X more patient positive outcome when you're applying digital PCR testing. Yeah. Through Galaxy. Right.

Is that what you're referring to? Yeah. Yeah, they have a lower threshold for the amount of antigen that actually has to be in the sample to be able to detect it.

And then they're able to, when they're analyzing it, this is the analogy that they used with me that made sense. Instead of looking for a needle in a haystack that's five million pounds of hay, They somehow separate it out into little piles of 1,000, and then you find it in there.

I don't know if they went through that sort of technology with you, but it's pretty cool. Yeah, no, it is interesting to see because again, good treatment is always preceded with good diagnosis.

I think it's certainly testing does apply. But what are maybe some of the symptoms that when patients find you, are they already coming to you with a diagnosis or is it they're just coming with an array of symptoms and then you're just pattern recognizing?

So, I mean, prior to drawing the line in the sand where it was like, you know, I don't see you unless you have a chronic vector borne disease along COVID or you're a child with pediatric special needs, I would say that I actually was finding it.

I kind of had that reputation for, you know, I have a mystery illness. I can't figure out what it is. I've seen, you know, 15 other doctors. I'm going to go see Dr.

Hinchi. She'll figure out what's wrong with me. So, you know, but over the past like two and a half years, once I kind of drew that line in the sand, I would say, you know, 95% of people who I am helping are coming to me with the diagnosis.

Got it. That makes it similar kind of with our patients too is they've seen five other practitioners or something like, okay, yeah, he knows what he's going to do.

He'll find it. Cause this is kind of like the ultimate mimicker, right? As it's kind of known, similar to syphilis once upon a time. And if someone is perpetually stuck in this TH2 dominant side, there's no TH1, there's no autophagy, there's no mitophagy.

You can't clean cellular debris fields and everything now is sucked and it leads it to this kind of dysautonomia and mass CAS or MCAS issue where the mitochondria takes a huge hit.

What are some of the biggest symptoms perhaps that maybe your patients that you see are struggling most, which is often overlooked? Well, I would say one of the big ones is that a lot of people still, and this always surprises me, is not linking the neuropsychiatric component and the cognitive decline in kids, especially with an abrupt unset, but even adults, again, abrupt being like the key word, you know, and it's like they're getting diagnosed with like primary psychiatric disorders, mood-effective disorders, you name it.

So that to me is always I think one of the most compelling symptoms, but I have patients that come in literally with head-to-toe symptoms because Lyme infects every single cell in the body and then it's going to affect every organ, every organ system.

And really one of the hallmarks is seeing this multi-systemic symptom picture. And then it's waxing and waning, it comes and it goes, it's chronic. you know, but it ping-pongs around the body and people literally start feeling like they're losing their mind.

Yeah, pun intended. I think, I know we were discussing this previous to our call right now, but in terms of mental health being a rise, especially with kids, I think it's estimated that 63% of symptoms associated with Lyme affects mental health.

It's often one that's super overlooked, unfortunately, and so If you're going to a mental health therapist or a psychiatrist and they're not testing for this, unfortunately, this could be the underlying driver.

Treatment Philosophy and Immune Recovery

So I appreciate what you've been able to do for quite some time now to help reverse some of these patients that are suffering cognitively. In terms of treatment, how do you start?

How do you put everything together? Yeah, before I answer that, I just want to say one thing, you know, when it comes to like the psychiatric implications, it's like a triple whammy because, you know, so like number one, most of these patients, as I know, you know, you know, they've been dismissed, they've been from doctor to doctor to doctor, most of them have been told it's in their head, right?

Or it's anxiety or it's depression or it is a primary psychiatric illness, right? So like there's number one. Number two, you literally have brain on fire.

all of this inflammation in the brain, a lot of times there's a leaky brain going on. And, you know, so that's kind of like the number two. And then number three, like we know these people's guts are on fire.

We know that they have leaky gut, that they have probably developed food sensitivities, that like their neurotransmitter production isn't happening adequately.

We know that their microbiome has been altered and now they have no ability to inhibit like that pro-inflammatory cytokine cascade that literally just drives the entire loop, makes everything worse, allows toxins to be absorbed through the gut, back into systemic circulation, damaging cells, mitochondria, leading to oxidative stress.

And it's like this whole huge loop that basically affects the terrain in the body. and drives all of this symptomology but makes the body now hospitable.

It's like a playground for these infections to just live there free and thrive. Yeah, what was in meaning to me is the health of the host matters most.

It does. It so does. specific to sudden onset of psychiatric behaviors. If your kids are all of a sudden kind of presenting with this, Barnella, check for them.

Again, this is unfortunately so prevalent now and perhaps the number one most overlooked or undiagnosed issue. So I know let's, let's kind of transition into, to treatment.

I appreciate how you were connecting the dots there because when someone is, anytime you have a gut on fire, you're going to have brain on fire and vice versa.

And every organ system, we're not just one organ system. And so as you said, is then it becomes a pathogen party, right? Where it's like this vicious cycle that until treated is, is stuck to, you're, you're often stuck in and can't improve.

So in terms of treatment, how are you starting? How are you connecting the dots there? What are you doing? Yep. So I wanted to paint that picture for you so that when I talk about treatment, it's kind of like that's all there because

my treatment starts with investigating the terrain of the person sitting in front of me, what pieces of the puzzle that we just ran through, like what are affected in that one particular patient.

So, like, what systems have been altered? What are their food sensitivities? What are their micronutrient deficiencies? What is their microbiome distribution like?

You know, are there opportunistic infections? What are they? You know, all of that. Then what organisms are there? Is it just Borrelia? Or is it Borrelia mycoplasma?

Or do they also have babesia? Do they have mycotoxin illness? Like, what else is going on So it's really doing that full functional medicine workup and addressing every single piece of the puzzle, as well as knowing what the organisms are, where they like to hide, what nutrients they rob from you, what cells they break down and take from, and then what are they?

Because if you know what type of microbe it is, then you can pick the right herb. Like we can't kill Babesia using antibacterials. Babesia is not a bacteria, it's a parasite, right?

So like we have to know what we're dealing with so we can go through and make an intelligent herbal treatment protocol to tackle all of the things that are there that shouldn't be there.

replace all of the things that need to be there that are missing, and then help the body to heal. And my number one ultimate goal is always to recover the immune system.

Because if we do not fix the immune system imbalance that these infections cause, you're never going to be able to stop your antimicrobials and not have the infection grow back.

So I always say people, patients and practitioners that are always just focusing on kill, kill, kill, we have to kill the organism, you're gonna fail.

You might be able to shrink the load of the infection to the point that symptoms improve or symptoms even go away. But oftentimes when you stop those antimicrobials, whether they're pharmaceutical or herbal, the infection just starts to grow back because you haven't restored immune competency to the body.

And I don't care what bacteria we're talking about. There's no antibiotic that takes any bacteria to zero. Antibacterials simply shrink the load of the infection, stop it from replicating.

The immune system is what needs to come in and completely eradicate it. Yeah, you're right. You have to definitely step the immune system and you have to certainly support the microbiome, the interplay with our gut microbes on every organ function of the body.

But certainly if you look at secretory IgA, 90% of our immune system, roughly in the gut lining. I know looking at Babesia in terms of how common it is, I think it's even more common than Lyme at this point, but going back to Lyme, which is caused by these spirochetes burring and they have a cell wall that When these agents go inside, it's very difficult sometimes to help extract that.

So are you doing some sort of combination protocols or antibiotics or you're not prescribed antibiotics and focusing on herbs? If it's not an acute case, no, I do not think that pharmaceutical antibiotics are helpful.

In a chronic case, a lot of the herbs that I use have been studied multiple times compared to the most commonly used pharmaceuticals and the herbs have been able to perform at least as well as the antibiotics.

So in my opinion, I don't believe in using chronic long-term antibiotics. I think they destroy the gut microbiome. They make, in the end, the inflammation worse, the immune system worse, all gut health and function worse.

And in the end, like I said, there's no antibiotic that's going to completely get rid of it. And a lot of the antibiotics, like

none of them address the persister cells.

So there are herbs that we can use to address the persister cells. We also have to break down the biofilms. So for listeners that don't know what that is, these are kind of like forts that the bacteria make to hide behind, to wall themselves off from the immune system, but also off from common medications that are used, including some of the herbs.

So if you think biofilms sound like this crazy foreign thing, it's like if you've ever gone to the dentist and had the plaque scraped off your teeth, plaque is biofilm.

And so just like the spirochetes in your mouth that make that biofilm, spirochetes in the body make it too, as well as other organisms. In addition to using inflammation to break the immune system and wreak havoc on your body and kind of make your body its playground, Lyme has all of these other super stealthy defenses that it uses to evade the immune system.

and ultimately get the immune system to work for them instead of for you. My opinion is you have to address each one of these evasions, so to speak, and put together a plan that is individualized for that person.

So say that you're lucky enough to just have Borrelia, right? So just Lyme disease. I would say, okay, we know that this is driven by Galactin 3 in most cases.

So I would use something called G3M, which is Galactin 3 modulator to block the Galactin 3. Then I would go after the three enzymes that Borrelia uses to break down the extracellular matrix and your collagen and your gut and feed itself.

And that's agrokinase, hyaluronidase, and collagenase. you can inhibit those three enzymes using ashwagandha, Japanese knotweed, and Chinese skullcap.

Herbal Protocols, Co-Infections, and Detox Support

I would then pull together one more anti-inflammatory herb, cordyceps, because together with the three that I just mentioned, you can inhibit all of the inflammatory cytokines, MMP9, interleukin 6, interleukin 1 beta, tumor necrosis factor alpha, and the MAPKs.

which stop the infection from really being able to break the immune system. Ashwagandha is wonderful for balancing the TH1-TH2 branch, like you had mentioned earlier.

then I would pull together, you know, my top anti Borrelia herbs, which would be Cryptolepis, Black Walnut, and Sweet Wormwood. But again, that's those three layered with the ones that I already said, Japanese Knotweed, Chinese Skullcap, Ashwagandha, and Cordyceps.

And I would say that with the G3M, at least from the herbal protocol angle, like the just inhibiting the organism and making the body inhospitable, that would kind of be how I would pull an individualized treatment protocol into the mix.

But then I would say, as you know, you know, you're a gut specialist. You have to pull in the right probiotics for the microbiome. You have to address for our protocol if there's a lot of leaky gut going on, which includes eliminating the food sensitivities.

You'd have to evaluate and see are there, you know, is there candida? Are there other opportunistic or commensal bacteria that are overgrown? You know, what's going on with the hormones and the ability to detox and you know, are they pooping?

Like all of these things, right? Yeah, certainly. Again, we're not just one pathway, one organ. So I think you just lay that out very elegantly. So I appreciate the depth.

We provided our listeners a kind of treatment considerations because it's very comprehensive. How long are you typically having your patients on this treatment plan for?

So as long as my patients are making progress, meaning that their symptoms as a whole are becoming less and less, so some of my patients start out with 40 symptoms.

And so as long as the sheer number of symptoms are coming down, as well as the frequency and severity of each symptom are coming down, then I will proceed kind of like with this protocol that we put together in the beginning.

I would say the average person, if they've been infected for less than two years, is done somewhere between nine months and a year. And that really, really depends on how compliant they are.

Compliance is key. Are you layering in the nutrition with that? Sorry, I didn't even bring that piece up. Yes, lifestyle, like comprehensive lifestyle, nutrition, you know, including stress management.

Like we can't fix our immune system if we have dysautonomia, right? If we're stuck in fight or flight, we're not getting better. There's, you know, a lot of trauma that unfortunately needs to be dealt with in a lot of my patients.

Diet is key, obviously, to anything going on with the gut. you know, an exercise depending on the level, you know, that one is able to and that's really on more of like an individual basis.

And then detoxing. I mean, not just detoxing, but stopping the toxins from coming into the body. We do a full evaluation and go through life and it's like, okay, what are you doing that's increasing your inflammation?

What are you doing that's increasing your toxicity? What are you doing that's suppressing your immune system? What are you doing to further drive dysautonomia?

And it's kind of like, you know, everything in the life we go through and try to try to balance that out and improve it. But a lot of it comes with stopping the exposure.

Yeah, I think that definitely step one. I mean, Lyme hits the vagus nerve pretty hard. So talking about it, kind of stuck in this fight or flight and we'll have many patients who have these kind of palpitations, if you will, which is another common symptom.

And what I want to encourage people to think too, if you feel migratory nerve pain, that's often again, Barnella migratory joint pain in Lyme. What are, how are you looking at Babesia then?

As far as what? Like what are the most common symptoms or treatment or what do you mean? Symptoms? Symptoms and treatment, yeah. So I mean, I think the hallmark symptoms of babesia are probably like drenching night or day sweats, air hunger, cough, shortness of breath with like little exertion like talking or just walking up a flight of stairs.

Sometimes it can prevent or present with anemia. And that's because Babesia likes to live inside of the red blood cells. So Babesia goes to the red blood cell, it goes through the endothelial cells, liver spleen.

Sometimes you can see elevated liver enzymes, low platelets, like I said, anemia symptoms. So like a lot of times there's like this weird dizziness or floatiness, almost like you're drunk, you know, trying to walk around.

But it's not like vertigo, like you're not spinning, the room's not spinning. The headaches associated with it seem to be more of like a global band or pressure type headache.

And there can be a lot of anxiety and sudden onset panic attacks. I think I hit all of the big hallmark features. Not a ton of joint pain. Yes, muscle pain.

A lot of times it's in your large muscles, like your buttocks, your quads. That was certainly comprehensive. So I

guess in terms of treatment though, Chinese skull cap, cryptoleptis, what else, what kind of are your?

So again, just looking from an herbal perspective, I would say my go-to are going to be Alcornia, Cedar Acuda, Sweet Annie, which is also Sweet Wormwood, Cryptolapus, Japanese Knotweed, Chinese Skullcap, and then Red Sage can also be very helpful too.

Are you formulating these two or do you have a specific brand that you like? I formulate for other practitioners because most practitioners like formulas.

So, you know, I've put together things for other practitioners. I pretty much use individual herbs and I teach the patient how to actually combine them together, like to make their formula.

But like if you go to Lyme core botanicals, like you can see we have a Bab core, a Bart core, a Bori core, we have core foundation formula, like all of these, you know, different concoctions that I've put together.

But I really like to be able to titrate exactly what my patient is taking and I make like this custom formula for them. And that makes it super simple then.

Yeah. That's awesome. Are you using any methylene blue? Any ivermectin? I don't. That doesn't mean that it's not useful in certain patients. In Connecticut, where I practice, I don't have pharmaceutical prescriptive authority.

And I'll be honest with you, way back in the day, like 15 years ago, I was trying to figure out how to go back to school to become a DO or a PA or whatnot, because I really at that point felt that pharmaceuticals were necessary to be able to treat these infections.

And, you know, had I had prescriptive rights or had I gone back and taken one of those other avenues, I really think that I never would have learned what my patients have taught me over the years.

And that's when it is chronic. At least, again, everyone attracts a different type of patient. I think the way to go is using herbs and lifestyle medicine and focusing on recovering the immune system.

So I have a lot of patients who have been on methylene blue. been on ivermectin, been on LDN, been on Dapsone, been on triple antibiotic therapy, mapron, malarone, rifampin, you name it.

There was a hot four-year period in my life where I thought that that was necessary, but really at this point since around 2016, 2017, I've been doing this all naturally.

Yeah, and very effectively too. So again, I appreciate that. Now in terms of patterns and co-infections, so I know you mentioned earlier Lyme and mycoplasma or let's say Babesia, heavy metal toxicity, so on and so forth.

Where do you see certain co-infections that come up often? What do you mean? Where do I see them? And so in terms of your patient population, do you see like a specific patterns?

Like, okay, you're the, when you mentioned Lyman and mycoplasma as an example, or like different environmental toxins or toxic burdens, because again, going back to the health of the host, our body is as you were just suggesting in terms of supporting immune function, we can fight, we've evolved to fight parasite, bacteria, fungal, protozoa, amoeba viral.

As part of our evolution, the problem becomes this overwhelming toxic burden where genes haven't been able to catch up to our evolutionary exposure to heavy metals, environmental toxins, and so forth.

Do you see certain other risk factors that are involved with some of these immunocompromised patients? Yeah, I mean, you know, I have a lot of patients that have Epstein-Barr that's reactivated, especially since COVID and the COVID vaccine, right?

And then there's all sorts of herpes families, viruses, HHV7, cytomegalovirus. So, I mean, I see a lot of those. elevated, elevated titers, which I mean, obviously, there's controversy over what that actually means.

You know, to me, if your immune system isn't functioning properly, all of these viruses, as well as other funguses and bacteria opportunistic or commensal bacteria, it's like if our immune system is functioning well, we keep these microbes in check.

When our immune system isn't functioning well, it's like this free for all and a lot of the various bacteria, viruses, fungal families, they all start to creep up and emerge.

I see a lot of chronic UTIs, a lot of chronic vaginosis, a lot of chronic SIBO. H. pylori, right? All of these other things that aren't necessary like foreign pathogens, they're things that we all have in our bodies.

But when our immune system isn't doing its job, or our gut's dysregulated, and we're not like sweeping out the SIBO bacteria, that it starts to grow. So there's kind of like that piece where if the immune system isn't doing its job, whatever the opportunistic infections are, so to speak, are going to grow.

But then when it comes to whether you have mycoplasma, babesia, bartonella, rickettsia, et cetera, I think that's just like the luck of the nasty dirty needle that you drew when the particular tick or perhaps flea bit you.

And then, you know, we're all exposed to toxins. I'm putting my talk together for A4M right now, I told you, and it's all about, you know, the importance of detoxing when you're treating pans, pandas, mold, or Lyme disease.

And it's like, you know, fact number one, like newborns have, I think, 278 different chemicals. You know, they found in the cord blood at birth, you know.

So it's like we're being exposed to all sorts of environmental toxins. We make all of our own toxins just from breathing and being alive. Then you have all of these organisms living inside of you releasing their toxins into you.

And then if you're exposed to water damaged buildings now, you're going to have micro toxins and you know, your genetics to a certain extent are going to play a role in what your body is able to clear or not clear, then obviously, you know, your gut plays a huge role on are you actually going to get those toxins out of your body or are you going to reabsorb them?

And then your micronutrient status plays a really big role too. You know, if you don't have the simple vitamins and minerals that you need, to run and coordinate phase one and phase two of your liver's detoxification system, you're not going to be able to detox.

And then if you're constipated or you're not drinking a lot of water and you're not urinating or you're not doing deep breathing or you're not sweating, all of those things are routes of elimination out of the body too.

And we can't get so hung up on like internal detox and cellular drainage and lymphatics that like we forget that like, you know, if you mobilize all that stuff without getting it out of the body, you're just increasing oxidative stress and cellular damage inside of the body by mobilizing those toxins.

Yeah, certainly 3D detoxification is absolutely critical looking at gallbladder and just making sure you have enough bile secretion so that the bile can bind to toxicity and preparation.

Um, both primary and secondary metabolites of, of bile. A lot of people come in with what that I see, you know, that they had their gallbladder removed as an example.

Unfortunately, that's still such a common practice and that's a huge discourse, whether that's even essential. Um, but that will can paralyze someone from.

cleaning themselves up from eliminating this toxic burden and supporting that is absolutely foundational. And then

the micronutrients that get involved looking at the vitamins, I mean, that's synthesized from a healthy microbiome.

Binders, Micronutrients, and Listener Resources

And so unfortunately, if your microbes aren't within, you know, a healthy ratio, that too becomes a problem. I know you mentioned that the hydrogen sulfide uh, bacteria from SIBO or methanogens, whether it's methanol brevver, uh, smithio or it's dysfolbrio or some of these other hydrogen sulfide bacterias, I find recurrent SIBO issues to be usually driven by something else at play here, minimizing the, the immune of the host, which is us.

But what's interesting is, I mean, we're, we're more bacterial DNA than we are human DNA. And so. Unless we optimize our microbiome, it's often difficult to accelerate recovery.

And then people are often stuck in this chronic sick pattern. I know you mentioned food sensitivities. That's one we can go very deep in. And the question is it the food that's the problem or is it the compromised immune system with now the intestinal permeability that drives these food sensitivities certainly can be both, especially with our constant exposure to herbicide, fungicide, pesticide, glyphosate, which is itself as an antibiotic, cleaning out the microbiome.

I mean, when we do these testings, we see very quickly that our patients are under a very heightened toxic burden. And so the question always is then, okay, where do you start?

And obviously it's a lot in the world of naturopathic medicine. They come out with so many nutraceuticals, if you will, but it's kind of like the order of operations.

I think you elegantly planted those dots, but if someone is mold toxic or lime or heavy metals or all the above, how do you think about starting? Or is it exactly kind of how you dove into already?

So, I mean, to put it out just kind of like very logistically, I would start with removing the things that we can remove easily. So, I agree with you.

I think food sensitivities are transient and they're temporary if you heal the gut, but with the first R being removed, the things that are causing inflammation and immune stimulation, temporarily they need to come out.

So I will typically do an IgG IgA food sensitivity panel and I will remove them, you know, I will remove those reactive foods from the diet along with gluten and dairy sugar.

Okay. Then I will replete the micronutrients that I find to be deficient on a cellular micronutrient panel. And then if necessary, I will use other agents that are helpful in healing the gut.

And I certainly am going to address the microbiome. Typically, I start with a high-quality bifidobacterium. And if they've been on a boatload of antibiotics, I will put them on Saccharomyces boulardii.

And then I will do that. And again, like this is individualized. So like, you know, person A versus person B might have a couple other things thrown in there, but I would typically do that for about a month.

Okay. Then I will start to, from an herbal perspective, go a little more hardcore in tackling the inflammation and the immune imbalance. So I might then go to like my Japanese knotweed, Chinese skullcap, cordyceps and ashwagandha and do that for like another four weeks, especially if the patient is one of those sensitive patients that react to everything or I think that their gut function is really, really bad.

I wouldn't want to get to the killing stage for probably like another four weeks with a patient like that. For a patient that seems pretty constitutionally strong and like they're not going to be an issue.

or maybe didn't have a severe leaky gut, that four weeks in when I put them on those first four herbs that I mentioned, I might put them on the ones that I consider to be more heavy duty killers as well.

If there's mycotoxin illness in the mix, I am doing things to protect the gut, the kidneys and the liver. So I might be doing like aloe for the gut because it's a great binder too.

bioflavonoids and vitamin C for the kidneys and then doing milk thistle artichoke for the liver and then doing bitters to start stimulating bile production and maybe some chlorella as a binder or the G3M, which is the type of modified citrus pectin.

I don't go in guns blazing with heavy duty binders. In fact, I know that I'm sort of alone in this camp, but I don't believe in using heavy duty crazy binders long term chronically anyways.

I don't think that's a good idea. And then, you know, I would probably work that for a couple months. You know, my sort of thing is like, since I'm using herbal naturopathic medicine, since I'm looking at the person as a whole, I'm going to melt their ball of wax all at once.

you know, I'm sure that you would agree. You can't heal the gut while you have a pro-inflammatory infection causing inflammation that's actively breaking down the gut.

Like in a perfect world, it'd be great to heal the gut first, then treat the Lyme disease. But like you can't do that. So it's like we can only get so far healing the gut, you know, before we have to tackle Borrelia as one of those Rs, right?

We have to remove The first star. So there's a lot that comes into play. My treatment protocols are usually pretty complicated. I think maybe less so complicated, but more so comprehensive and personalized.

Cause I think you painted that picture absolutely beautifully. And in terms of even preparation, right? Someone's sick, you go to a conventional doc, nothing against them.

These are also all brilliant practitioners and you're administered antibiotic as an example. And sometimes that can actually make things worse. Right.

And so there certainly needs to be an account for preparation and then in just terms of how in the order of operations of when you do things, as you said, because the inflammatory burden can remain high this entire time.

And so it's difficult to, to heal if you're constantly in an inflamed state, a high oxidative burden, et cetera. So. I appreciate kind of the very, very well versed approach.

I know that we're kind of coming up on time here, but I do want to really quickly unpack because you said binders where you stand alone. I definitely have some mixed thoughts about binders, but I've seen certainly the benefit of binders and some things like people.

Gentle binders can be overlooked, something like Okra as an example. It's not necessarily you have to hit with these pharmaceutical grade binders, but with some of these kind of mold-strictive patients that we see a lot of these serves that are very sensitive patients, we've used binders effectively.

I know nothing comes without consequence, certainly, but I'm curious kind of your two cents that are, are you just avoiding finders period, even like any of the zeolite or the clays, the charcoal?

Personally, I love chlorella. I love G3M. I like aloe and then. Like you mentioned, okra, but you can also use chia seeds or ground flax meal or different fibers in the food that help to bind as well.

I will use activated charcoal for certain microtoxins. I will use activated charcoal for severe herxin, but I will only use it strategically for a short period of time.

I don't think With the amount of nutrient binding that activated charcoal does, that it is a good idea to use it chronically for months and months on end, unless you're going to have the patient waking up in the middle of the

night and taking it absolutely away from everything else.

I like SBIs. I think SBIs can be a good binder. But no, to answer your question, I don't use actually any clays in my practice. I don't use zeolite. I use bentonite clay mixed with andrographis topically if there's a tick bite.

But I mean, I don't use any of the clays. Fair enough. And well said. I mean, fiber, I think is not only fuel, but often one of the most overlooked. I know you said modified citrus pectin, which is also a great option too.

Again, I think we stand very, very similar in that respect. Obviously if you're doing charcoal long-term, which I don't think we're doing with anybody, not only in terms of when you suggest it, but you're also binding minerals too.

And so that's going to be a cause for mineral depletion long-term and that the micronutrient But the micronutrient issue is one that is very alarming because all our enzymatic functions, while they're very pH dependent, they're very micronutrient dependent too in terms of healing.

If you're micronutrient deficient, you're going to be stuck in perpetuity. And we find that our patients or most people in general, we are overfed, but yet malnourished.

We are micronutrient deficient. So it's no wonder that often our healthy microbes too aren't getting the right resources either. And we're kind of the perfect host for them.

I know that I need to be mindful of your time today. We definitely will have to do a round two. I certainly look forward to seeing you here for your upcoming conference.

So if you can maybe share with our patients and listeners, where can people find you if they want to look more, if they want to be part of what you're doing, your formulary and so forth?

Where's the best way to find you? Sure, so my clinical practice is Tau Vitality in Hebron, Connecticut. So that's T-A-O-V as in Victor, I-T-A-L-I-T-Y.com.

My supplement company is Lyme Core Botanicals. That's L-Y-M-E-C-O-R-E.com. And then my podcast as well as our annual conference that focuses on complex chronic infection driven illness.

is LimeBites, and that's L-Y-M-E-B-Y-T-E-S dot com. I definitely look forward to connecting here in person. I encourage all our listeners to kind of check out what you're doing too, because anyone kind of who comes from the same background as myself is someone after my heart and I can appreciate the depth of what you provided today.

I hope everyone took away some great new ideas in terms of where they can intervene on their healing journey. Thank you for sharing your expertise, your passion.

And most importantly, I think restoring hope for patients that there actually is an answer, right? We are able to intervene and input equals output. So if you're providing the right context to help the body heal, we have an innate capacity to do so.

The last question I always love to end by asking my guests is if you could have any one superpower, what would it be? Like you've stumped me. I don't know.

I've never ever thought of that before. When you were a kid, how about this? When you were a kid, was there anything that you dreamt of or anything like that?

This is so silly. Yes, I want to fly. I always thought I could fly. I want to fly like a bird. That's a silly answer, but I don't know. That's what I've got.

I've done so many things right now and that's usually the most ubiquitous answer. Interesting. Really? Certainly mine as well. I'm curious to, I don't know if I'm going to have to get some someone else on the podcast to unpack

or kind of understand going back to root cause medicine, but root cause is why I want to fly.

I dream that I'm flying and I'm like so happy. And then as soon as I realized I'm flying, I wake up, I start falling and then I wake up. So I'll leave you guys with that.

Well, again, this has been a privilege and a pleasure. If you all have enjoyed this conversation, be sure to subscribe and share this episode with someone who you think can benefit and someone who needs it.

Until next time, be well and we'll see you back here soon. Thank you for tuning in to the TBD Fit podcast on Dr. Talks, where we unpack all things health and longevity.

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