Introduction to Mark Levy and the Mycotoxin Discussion

Welcome to another edition of Mycotoxins and Chronic Illness. Today is going to be another very interesting conversation. We're, talking with Mark Levy.

Mark is a, internist, a doctor who is, director of integrative and functional medicine at the ehm, and clinics and, he also is, a thinker. I mean, I think that's what I enjoy about Mark the most is that he doesn't just, try to, take what's given to him, but he really looks deeply into problems.

And, we were just. He and I were just chatting. I didn't realize, you know, he he early on, was, you know, had been raising the need for different ways to look at mycotoxins.

And, that's why today we we have the, Elijah method and the mass spec method. And but that still confuses us because as you've been listening to these discussions, you know, that, tests are not the answer for everything.

And, so I think first off, Mark, if you would, you know, I just realized one of the, the the things that always intrigues me, when I get to talk to different physicians is what's the picture that, makes you think of mycotoxins, you know?

Well, so I have a kind of unique, job and and abilities to look at the brain directly. Right. And and clinically do brain scan. That's kind of our gig.

So, when a patient comes in and they get their scans, which they all do know for psychiatric reasons, I get to see their brain. And if it looks terrible, you know, on the Spect scan, there's a brain problem at whatever age.

So if you come in with, you know, name your problem and your brain looks totally healthy, that's one thing. If it looks sick and I'm the one that has to figure out why that is.

So is it mold exposure, Lyme disease, infections? On and on and on. So it's always in my differential mold exposure. And I ask every single patient, have you lived in a place that have had a water damage, leaky roof, plumbing problem, wet basement, be amazed how many people say, oh yeah, yeah, my basement floods every summer and it gets moldy smelly down there.

So always on the differential. Ask literally every single patient that, because you kind of have to cross off all of these boxes to figure out what's wrong with their brain.

So, there's that, and I start from that aspect. But I also get people that come in with mold poisoning. Right. Gold exposure. A lot of people that are looking for, you know, legal representation, landlord and also we get those two and I think, you know, anyone who's done this before knows that, that can be a slippery slope.

It's really hard, I think, to prove someone is sick from old exposure. It's. I always tell them by far the number one thing. Check your building. Right.

So the those tests are the most important. Mycotoxins really help to show that there's something coming out of your body. However, you know, if they were exposed three months ago, they're no longer there.

They're still sick, you know, are the mycotoxins still there causing trouble? But who knows, right. We that's why we check. But they can sort of almost like radiation damage.

I think they can do their dirty work cause damage, and they're no longer there. But the patient is still sick. So, that's why you gotta to tread around these tests carefully.

I'm. I consider myself pretty critical thinker. When it comes to many tests.

Using Brain Scans to Consider Mold Exposure

I got some tree lined patients, and so you know, wine is talk about a minefield of diagnosis. Right. But those tests. So mycotoxins, the same thing. All, you know, people coming in with a mycotoxins test and say, look, I have mold poisoning.

Well, let's let's talk about that. So you know where it's actually coming from. But it's always on the differential for pretty much everybody. I see. Yes. Do you I won't that you raised something that was really important.

You know, since we, we have you know, we've talked to I in this series, you talked to doctor Shoemaker and doctor accurately and, and some neurologists like me, we're going to be on as well.

Who, you know, and the whole issue of, using the, neural quad, which is another way of looking at the brain. I mean, so how have you looked at both or this actually, the first question is on the spec scan, have you been able to differentiate between the inflammation or lack of blood flow that you see from Lyme and from mold at all, or.

No. You know, I wish we maybe if there's some great AI program we develop at some point. But, now all you can tell, you know, it's a blood flow study.

So you can tell, you know, it's a blood flow, good or not. That's kind of what we're seeing with the scan. There's no particular pattern for mold. I do neuro clients quite often, particularly if somebody comes in with, it's more to, to dig further into the spec results because if it's horrible, you know, then we do a neuro plan to confirm it is the anatomy matching up with the blood flow?

Is there a difference there? Especially with things like atrophy. So I do neuro quants, quite often, but not to diagnose mold versus Lyme. I have not found that to be accurate personally.

Yeah, yeah, I, I, I have to I have to agree. I think there's occasionally, you can get a, a strong, a strong, a strong strong hint that there is msl involvement.

But yeah, mold versus Lyme. I, I haven't gotten to that detail. Yeah. So since they would spect, you can't really differentiate because the differentials, you know, huge.

Right. There's viruses and toxins and metals and, and all of a sudden we do so well. Yeah. That that is easier when you break it down to 1 or 2. Yeah.

And mole in particular, you know, a super big part of where I focus because you know, as you know, we can spend lots of our patients money on tests and, lots.

So where do you start? So to me, the history is just the most critical. You know what I ask everyone is whatever's going on with you now, have you always been this way?

And if not, you know, when did things change? So. Oh, I was fine until I went to college and I was in a dorm. I guess what, you know, some people freak out in college because they can't handle it.

Some people freak out because they got moldy dorms and their brain goes too much. So history super important then. And maybe I can focus my testing, you know, more directed at or I went hiking.

I went on a trip to India and it was never the same. So something happened at some point. And that can help direct the treatment. So same thing with any kind of possible mold exposure, at work or at home that, you know, and if there's any brain fog or symptoms that are just more common with mold compared to, say, Lyme or.

Yeah, of course you have the interactions between all these two. You can have all those, right? Yeah. No, I mean that that often is the chicken or the egg and I'm sorry I, I, I do yeah, I do believe that it takes something to really get for most of us to get a sensitivity to mycotoxins.

I mean, I it's amazing how we come into this world like that. The vast majority was able to tolerate mycotoxins, right? Yes, absolutely. I tell everyone that, you know, it's because people, as you know, can freak out about certain things, almost get a little bit OCD about things, and they seem a little tiny mold and even mildew in the shower, and they freak out or they become super sensitive or they, they think they are.

So again, where I work, where we see psychiatric patients sort of by definition. So, a lot of that can be intertwined with it's almost germaphobe. And then but that's focused on mold.

So yeah. Well, I mean, that is one of the problems of a chronic illness is that once you once you've been ill for more than six months and the world starts to kind of move away from you, you know, and this is illness behavior.

If you keep asked to help, people don't want to be near you. If you disappoint them because you don't know when you're going to be well enough to do something with them.

Whatever anxieties that we all have often gets magnified. And, you know, in many of us, you know, we'll run back to see if we turned off the stove or did we lock the door?

At the best time. And, you know, when you, when you've been in have an inflamed brain, that tendency towards, OCD. That's why I think you wind up seeing a lot of patients who probably, as you you know, that's what what you're doing there is seeing that there's an underlying medical problem.

It's not that they're just a little more neurotic than the rest of us, but they have. I mean, they can literally, like, drive me crazy. Or if you're chronically ill and doctors can't figure out what's wrong with you, which most can't, you know, then you get PTSD from being just physically, emotionally traumatized.

So yeah. Yeah. Because it's so it's always that's the the quote art of medicine part, right. Trying to yeah that out you know. Yeah. Yeah. And I think what I, what I've decided about testing is, is that the difference between testing in what I call conventional medicine or, you know, just acute acute care medicine, acute care in medicine, the tests, when they're useful, are fairly useful.

You know, like you get an X-ray and the bone is broken. You know, you're anemic and the blood count is low. But when you have chronic illness, the tests are no longer as black and white for diagnosis, usually.

And it's more the history as you were saying, is where is where the money really is. And the tests can kind of help reinforce your intuition or your diagnosis.

But they're not, are that's the the great sadness. I know you have really put a lot of work to try to help move our testing to be more precise, but unfortunately, you know, I think you've done some nice talks on how to look at mycotoxins testing, you know, with a little bit of a, the judgment to it. If you want to talk a little bit about that and what you've, what you've seen.

Yeah.

History, Chronic Illness, and Why Testing Has Limits

So, you know, I kind of helped GPO get rolling with, with their mycotoxins test and, so, you know, a lot of kind of inside info there too, on the test itself.

And how was developed and how has over time, I think you talked with, Matt Hiatt, who a hell yes, about the test, basically. So the. The one problem I see and I got, I speak with GPL at GPL all the time for some of their, trainings.

And so I try to get the point across that this is a snapshot in time, at that moment. So I don't I try not to make a column mold poisoning, you know, on one test.

And that can be from other sources, like food. So we talk about where it's coming, what you're really seeing, and

it's, again, just another tool that we have in the tool shed, but try not to hang your hat on one test and one diagnosis.

So history is super important. Again, with any test line included, maybe even more. So use it to back up your intuition, but not make a tool call on it.

So early on what I did with this test. Again, because I try to make most sense out of any test. Is it repeatable? It was my number one question. So, I actually did a test on myself.

Get the food log, you know, Monday through Friday. Is this even stable day to day? You know what? If you do it tomorrow, is it the same thing? What, about three hours later?

So I did it every day for five days, and it was different every day. So the toxin was fairly stable. But the micro phenolic acid, for those of you who don't know this test, but there are several mycotoxins on the panel, changed every day.

It was eight and then it was 250. And on one day k the Globus and showed up. Right. So it's a case from K. Tell me. Yeah. It wasn't there at all. It was zero for four days and one day it was high.

Same office, same home, different food each day. So there was variability there. Right. Just on a day to day basis again. So it's a tool. It's helpful.

But you know it can change. So same thing with Lyme testing. You know this is just even more aggressive with yeah positive negative IgG IgG. Which one's real.

So similar with mycotoxins. But it is a tool I think it's helpful. But again don't hang your hat on the diagnosis. Yeah. Yeah. Well I think that, that that is, is is the most important thing that we're looking at, the changing soup that is us and, and, you know, I mean, and just to to, I mean, you know, just to reinforce so I think is a really, really important point is I was talking to, to Doctor Flaherty before we got going is what I'm really enjoying about these.

This summit is how much I'm getting for each doctor, everybody, you know, like I think when we go in, you know, we we think momentarily. We know a lot.

And then each time you sit down and talk to people, you get another little, you know, piece that seems like that was obvious. Why didn't I think of that? Know?

And that's what I think is the best part about conferences. You know, the virtual stuff isn't the same. You know, I've been doing quite a few of them over the past Covid year.

But, just like you said, you know, usually hanging out with your colleagues. Yeah. And in between or afterwards or whatever is where you really get the juicy stuff to.

Oh, man, I should try that. You know, I'll go do that. So or so. And then the speakers usually it's just that camaraderie and that common shared knowledge, you know, that we're all yeah, bathing in that, which is great.

Yeah. And again and the, the thing that's always the exciting part is that that piece that because we're all different, we look at things differently and, and so but just getting to to the patient perspective is that just to understand that when you're looking at tests that, are measuring what's happening in your body, realize that, that, you know, certain chemicals are kept in a very tight range in the system.

Okay. You know, your sodium, your potassium, your, you know, chloride for you as an individual. But, lots of things bounce quite a bit, you know? I mean, like your white blood cell count, it'll stay for you usually.

But if you're exposed to it bounces around, you know, panic and the toxins are especially important because it's your exposure. It's how you metabolize.

And and I think the biggest point that, Doctor Vladi always likes to make. And I'm going to let you make it in a minute, I think with some detail is that if, if even if you're in the cleanest home, but you're eating food and food is a great source of mycotoxins, and that's what I meant.

What I'm saying, we are built to deal with mycotoxins. They are not inherently, at background levels, dangerous to us, right? It is everywhere. Yeah, mold is everywhere.

You're not going to get rid of it. And so please, you know, understand that it's just mold when it over grows and starts producing excessive amounts of mycotoxins.

That's what it's going to get you in trouble. Or if you develop an allergy, which is, something that we've talked about and we'll go back, I'm sure that don't get vouched for little, his, his understanding or take on, on these two big issues because, you know, we did have a talk with, Ty Vincent, you know, and Ty's really big on making sure that people understand that not to try to use LDI if they have a micro toxin, reaction to a micro toxin toxicity.

Now, they may, in fact, have a micro toxin allergy, and but he still doesn't have all the toxins to make a mix for that quite yet. But so but so getting back is it tell us a little bit about the mycotoxins in the food supply.

So yeah, they're ubiquitous. And you know, the animal husbandry business knows mold and mycotoxins sounds pat. But this part of the lecture I do, they know every Michael Jackson what it affects, what part of the body, what are toxic levels, you know, for pigs and chickens and cows and pretty much every animal, because mycotoxins affect your, your animals. Right.

So if you're if your pigs aren't, gaining weight, if your chickens aren't laying eggs, you're losing money. And this is, you know, billion dollar, multibillion dollar industry.

So and it's well known that mycotoxins in food affect animals. Now, farm animals are particularly more exposed to mycotoxins because they are grains and stuff that flies around and gets moldy.

So, there's there's a world mycotoxins survey that checks grains all around the world every year. And 70 to 80% of the grains in the U. S. are contaminated with ten or more mycotoxins.

So. And several of them we can't test like dioxin and Alaniz. But the most common one, Deon bad stuff. It's the number one found in grains. We don't test for that yet.

I keep harping on over some GPL or somebody to check for Deon, but they can't right now. So again, that's just another layer of food borne mycotoxins.

That and they're synergistically bad, right? So if you have more than one they're piling on causing trouble. So it's absolutely in the food supply. Okra toxin is ubiquitous.

100% of people have a toxin. You know, if you study in Germany, every single person had detectable levels of okra toxin. So it's there. You don't want a lot of it.

You don't want a lot of it's in food. Aspergillus and Penicillium are basically universal, right? They're everywhere. Yeah. Yeah. Those are the ones that show up in the food supply.

But there's some bad guys to that that we don't test for. Right now that are in food. So anyway, the US has plenty of problems with moldy grains, which then gets baked into your bread and your cereal and all that.

You know, patch on, which is an apples, right? Is really bad stuff that causes, you know, horses brains to turn into jelly. That's from contaminated corn.

Excuse Aaron, but Ashland is an apples, and it's an apple juice. And the FDA website says it's probably a good idea not to drink apple juice frequently.

But what our kids get during those little juice bags. Yeah, yeah, Apple juice, like, every day. So probably not the best thing, So anyway, so, you know, for sure, we only hear about it usually when there's a poisoning event, you know, where where there's contaminated grain and people die from, you know, aflatoxin or something.

But there's, there's low levels just daily in our food, which, as you said, we, we evolved with this stuff. So I think we're okay with most of it. But, you know, if you got a basement full of stack, you mattress that's like a different different from. Yeah. Yeah.

Well quantity is that is usually a lot to do with the poison. Yeah. And then also what you mentioned with the testing, you know, part of what you mentioned was the metabolism.

So you can have two people in the same house, same level of mold, one person sick as a dog, the other one is fine. Why? Because they're getting rid of their toxins, right.

Mycotoxin Testing: Variability, ELISA vs Mass Spec, and Food Exposure

So they might have an elevated level of mycotoxins in the air because they can get rid of it. The other person can't. And they have a low level on their test.

So yeah. But but you, you know, this is the, the, the Talmudic or the, you know, the ins and outs of an answer that I would love to have. You know, when you look at the, the Elijah test versus the mass spec test, and, you know, because for the I just to remind people is the mass when the mass spec test, when you're looking for the mycotoxins, what you get in the test is just the mycotoxins.

If your body has metabolized this and changed it, which we do to all of them, you're not going to see it because Mass Spec is designed. It measures things by their weight.

So if you added another molecule onto it, it has a different weight. You're it's going to be invisible on the mass spec. You know, on the other hand, so that's the downside of the mass spec testing.

The upside of the mass spec testing is that you're getting an idea of your exposure because and is what your body, either can't handle or is able to come out so easily.

And then there's the, the the the the great question. And with the Eliza based test your you might be getting the toxin, but it might be attached to a molecule like glutathione own or glucagon or something which has made it so it's no longer reactive in your body.

So again, we might be seeing a high level, but maybe your body doesn't have a problem with that. And these are answers that I wish we could get, the good scientists in the world to help us with, I mean.

Right. Yeah. And the, you know, the. Yeah, the because the Elisa tests, you know, the one that's available, basically real time, is, you know, they're tricky to see.

Marker has multiple try copies, 7 or 8, nine of them in there. Right. So you don't really care too much about which one it is. You just don't want them.

Whereas with Mass Spec it has to be specific for each one. So again pros and cons but also Eliza, you know you can get false positives right. So there's that problem too.

There's there's no great one. You know there's there's trade offs for both. Exactly. I mean I think that that that is the, the, the bottom line here. There's I mean we you know.

We, I mean one of the things that I've always, I've always been upset with, I think the, the businesses that, that have grown up to help support a functional medicine, over the last 30 years is that, I don't think they've they've I mean, this is my personal opinion.

I don't think they spent enough money on, research past past developing the test. And I don't want to sell tests, which is what they do. Yeah, but I would just love if they would, really be willing to put up, you know, significant, money to, to help us refine what these mean.

And, and because, you know, it's clear they mean something because, you know, when we see people with, you know, who are sick and they're running ten times the upper limit of normal consistently, something is probably going on because in normal people or the asymptomatic folks that I've looked at, and I know when I spoke to, Doctor Brad Hiatt, he was saying that, you know, they were pretty low, you know, they might be there, but they were pretty low in general, you know, and I think that's I mean, is that been your experience as well since you've looked even closer at this than I have?

I think that that what was low particular that just any the mycotoxins in general, when they were ten times the upper limit of normal. Oh yeah. Yes, yes.

Yeah. That's what I look for. It is big outliers. Because, you know, same thing with the organic acid test. You know, the oak test. I use that a lot as well.

But, you know, everybody is going to have a little red diamond somewhere that's abnormal. So I'm looking for large swings, you know, things that whole groups that are off or big numbers.

Right. So because Okotoks and like on on the the GPS test an average I think is well into the red zone. So I see averages of 15 fish which is already, you know, in the red zone.

Right. And if you know, if you looked at those tests early on, they already changed the reference ranges up quite a bit from the early days. So, that's work in progress still.

Yeah. Yeah. But that, that that's generally my, my, my personal, cutoff for fairly fueling feeling fairly certain that there's a problem here, you know, you see, is ten times the upper limit normal.

I go we have a problem, you know. Right. But when it's, when it's in those lower energies, you know, then it's judgment again. Is this variation, you know, I mean, if it's empty, it's nice, but, you know, but then again, you know, this is like heavy metal testing.

We have the same issues there. You know, I mean, some of the, some of the highest ones I've seen have been really healthy people who, who happen to eat a lot of fish, and they're very good at getting rid of all that mercury.

And the sickest people have had consistently low levels and no matter what we do, we can't get them to budge because they can't get rid of it. So, I mean, right, this is this is the testing dilemmas.

But, you know, but it's really nice to hear because from you, because I said you've spent a lot of time going, oh, you know, looking looking through the thickets.

You kind of have to, to, to get the right answer. So, yeah, it can be frustrating as, as we know, but, to know better, but I, I think do our best. I think you and I think you've helped moved, you know, moved the field forward just by doing simple things like, you know, measuring your own, your own mycotoxins over five days is a really, really just important thing for people to understand.

And you take a deep breath and just because you get a little bump up doesn't mean that you're getting sicker, or that you have to call in to remediate or to your house again.

Right? Know it wasn't necessarily a failure. But so what were you just another area of, quite a bit of disagreement in this field is the issue of colonization.

Oh, yeah. Yeah, yeah. And I wish we had tests for that. So that's, you know, we're I'm still learning a lot. Is when do you treat systemically? Yes. Of course.

Richie Shoemaker doesn't go there at all. Doctor Brewer's more. Yeah. You get in your nose your respiratory tract. And, I mean, the only time we hear about mold in medical school, right, is with Aspergillus, right.

So tell us the fungal balls. Everybody knows about that. Not controversial. But can you be colonized and not have, you know, full blown aspergillosis?

Yeah, I think so. In your respiratory tract, your GI tract, who knows? So, you know, it's just pumping out okra toxin or whatever else it's doing. Well, it's there.

So, yeah, I think it can be there. There's also some kind of concerning studies showing that there are there's fungal DNA found in the brain of Alzheimer's patients and not in controls, multiple species.

So, you know, Candida crosses the blood brain barrier. Some of these molds May 2nd. So who knows what's up there. But it was a fairly small study. But but it was, it was really statistically significant because there was 100% of the Alzheimer's brains and zero of the controls had fungal DNA in the brain at autopsy. So, yeah, I wish we could. We had better tests.

There is one, you know, real time does a called a dart test, which is looking for several species of Aspergillus PCR in the blood, as well as Candida.

I've run down a bunch of times, only ones that had ever come back positive. So I don't know if this is I. Yeah. Yeah, I, I think systemically yeah. I think, you know, I mean this, this is an argument that's been going back, 40 something years now because, you know, I first started, you know, this was when Doctor Crook, I forget, I feel so bad.

I forget the other gentleman who did a lot of work early on in the issue of Candida, systemic candida. And, you know, when I was first starting, I mean, it was totally, you know, the conventional medical world, you know, idea was, you know, only people with, with, with systemic Candida were cancer patients, you know, who had no immune systems because it couldn't possibly be if you were healthy, you could be in your bloodstream or, you know, causing a problem.

And, you know, we've dealt with this on and off in, in all areas. It's that black and white thing about medicine. If it doesn't kill you, it doesn't exist.

You know, they don't get the idea that there's a floating in the spectrum of, of, of response. But anyway, so this, this idea that, that, that the body we know that we're full of yeast and molds.

I mean, you know, there's a there's a microbiome too, right? We know that. Right? Exactly. And, you know, and so, I mean, just kidding on so many levels.

I know Doctor Shoemaker is I said, since we've spoken to this is very, is always not always. But in the last ten years, I've been very adamant that there's no, you know, that there's no colonization in the sinuses.

But the thing I would like, I mean, he is that in the last years, his favorite treatments, you know, when he stopped using much big spray has been, you know, silver and EDTA, which I believe probably is very good at dealing with mold, colonization as well.

And, and clinically, we've seen that clear a lot of brains. You know, it's, it's so, you know, I, I think it's, I think it's there, you know, I think it's there.

I wish we had better tools. I do the, cultures all the time in the nose and and not infrequently, you'll find mold growing there, all kinds of different types.

And, you know, I think it's pretty well known that chronic sinus infections are often chronic fungal infections. Now, I don't know if it's mold per se, but certainly fungal, you know, Candida species or whatever.

Pretty common. And you if when you do see it, you know, you can see it mucosal thickening. Right. They see that all the time. That's probably on a chronic infection.

Could easily be fungal. Maybe jealous that it's, it's not checked much. I know a lot of, EMTs go in there kind of open things up and scrape things out.

They don't culture, enough, in my opinion, because realistically, no, no, no, I mean, EMTs, don't culture anything enough. I mean, like, they, they they, they still make the mistake of, like, you know, culturing, you know, swabbing tonsils and the only thing, the only thing the lab will look for is strap, which is, you know, it's kind of like, wait a minute.

We've had a chronic infection here. But anyway, so this issue of colonization is, I think is really important, again, for people to think about, you know, when, when they know they've remediated their house and they keep having, you know, symptoms and sometimes periodic, very high levels of mycotoxins, you know, in their urine.

Colonization, Binders, and Treatment Approaches

So it's it's a great it's a great issue. And as far as, you know, treatments, are how we, how do you, what's your take on binders or, you know, but we're, you know, early on, early on, I was doing Kostya, I mean, you know, torturing people with it, but I never did for time, and I don't know, I, I've had, I've had, I think two out of 20 years of using colo started me and I think I had three patients who ever made that.

Yeah. I would just not don't even go there. Right. So twice a day, or. Well call I use you know, a lot of clays and binders and stuff like that. GI detox is one particular, one ultra binder.

And in the animal husbandry biz, it turns out that, you know, they have these products that eliminate toxins really well, in fact, much better than zeolite, much better than more planet clay.

And they combine charcoals, clays and yeast cell wall extracts. Seems to be the super charger for that. And trying to get a hold of what exact product they're using.

I don't think it's straight up beta glucan that some some yeast cell wall product that works really well. And in fact, the animal business has enzymes that destroy inactivate cycle of proteins inactivate known it, cleave them, get rid of them 100%.

Only available for animals. So, there was a little clip I show from the company, that does this, and they have all natural products that that destroy mycotoxins, prevent uptake, destroy it in the gut, eliminate it in the bloodstream.

It's amazing. All natural. A lot of them are herbal compounds. They're used algaes and things like that. So it's it's a known, well known science for them, but not for us.

So much so. Well, you know, it's a shame that that that to get it, to get something, you know, something that to use systemically across the FDA would be, is so prohibitively expensive that we can't and we can't get anybody to do.

You only need to do it, you know, and then and I think the other part would be, is that since the idea that, mycotoxins, systemic mycotoxins are a, a major problem, you know, you can't get the FDA to approve something that they don't agree is a problem in the first place.

So I think to be doubly, at, yeah, hard to hard to get done. But it's interesting. Doctor. Yeah. Matt. That, you know, Matt Hiatt, he's now working for one of those companies that using it.

Those are called the mold probes or something. They're using at least the clean, at least to clean houses. Yeah. Not sure if it's safe to drink. Yeah, but, yeah, it's good for your house.

So. So treatment is, you know, as binders and detox support, you know, gluten allowance support, sauna or

whatever, you know, kind of your general detox routines, liver support, etc..

But, you know, they can pretty much do oral binders again if it's systemic, though. And then what do you do? So, those aren't going to work. Some people I don't see how zeolite that spray is going to be systemic or I don't know if you want zeolite in your bloodstream.

So there's these nano sprays are supposed to I don't know, that doesn't sound like a good idea to me. You know, those are all ruminant silicates. I don't think they're supposed to be in your bones, your blood in your, But oral binders?

Certainly. And then just whatever you use systemically to help detox, and then the. You know, the big question is, when do you use antifungal? So that.

I still don't have a great answer for that. I see some people coming in from other, quote, mold specialists, and they're on boatloads of stuff, you know, Spore and Ox and at multiple antifungals, which, of course, can have a pretty big liver hit.

You got to follow that. But and for months and months and months. So, I don't know I don't know where to go. I was using for a consol I. V. for patients that I really suspected had, you know, okay.

Yes. Mold issues. Didn't see a lot of great responses. It certainly wasn't anything, you know, any moments with with using that? At least not, you know, fairly small number that I tried it in.

Yeah. But it's, it's I mean, I think it's funny, but that's, that's, you know, when we don't have big studies, I think it's God playing with us because sometimes, you know, you'll do something, and, you know, the first five patients, it's like, wow.

Yeah, it it works. And then maybe doesn't work so great for the next 20, but you know, but that first five really put it in our brains and. Yeah. Yeah. But sure. Yeah yeah I know I know but and then if the but then you know but if the first five if you get really nothing rich enough not worth the, you know the investment and time money and risk.

Yeah. Then it's, it's hard to keep going with this. So you know, I, I, I, I find systemic, antifungals in the right people, I think are just amazing. But it's, it's in the right people and I really I to me, it's the colonization in the gut, which is where I sometimes need the, the, the drugs, and, and they, and they can be a and the, the return is, is almost, you know, it's what we love at least you know, I mean, like, we have to be careful.

But but I think those of us, especially those of us who are MDS who have entered this field, you know, long ago, we the thing that always was so impressive in medicine was the emergency room moments when you like, you know, give Lasix to the person with heart failure or IV or nitrates to the person with angina.

And like, you know, in front of your eyes, they bloom, right? Right. Yeah. I don't see that much. Yeah. No, no, you know, we don't see that too much. But I think that that's always, that always, attracts us.

And, and for some people, you know, the systemic fungal antifungals can actually do that. They're not that common. But when that happens, it really goes, oh, it's hard to throw that away.

You know, because I know Doctor Shoemaker is very much concerned our overuse of them is contributing to, producing, you know, more resistant bugs and difficulties in our own and our own system.

But when you see the results, you don't want to throw that away completely. So I like to leave it in the, in the bag. And I mean, the same, same boat with, you know, like I see a lot of patients as well. And, you know, it's not uncommon to see people coming in being hammered with antibiotics, right.

Like multiple drugs for many months. You know, I trained with the former president of my labs, and that's what he was doing. You know, 17 months later, still rotating antibiotics.

So talk about antibiotic resistance. Yikes. Yeah. Yeah. Well, no, I mean that this is something that I, I, I had a hard time starting to treat Lyme like in the late 90s.

I wouldn't touch it because I couldn't believe that I'd put people on antibiotics based on a clinical diagnosis. Because for those of you who don't understand and, and when you're in the hospital, if you don't get the culture back, the infectious diseases don't want you to treat almost.

I mean, if somebody is still with us, you if they're they're near death, you can throw everything at them. But, you know, if they're not, they really want to see the white of their eyes.

They want to see a culture. They want to make sure you have the right bug. And in Lyme disease, we were treating clinically based on your symptoms. And that made me very uncomfortable.

So even though I, I do use a fair amount of I. V. antibiotics, but I don't do them for long. Unless I see dramatic results, I, I really feel that it's that we have to find another way to dance.

If it's not, if we're not getting a response relatively quickly, you know, but the reason people kept doing it is every once in a while, someone would be on I. V.

antibiotics for a year, and then suddenly, while, they were better, I mean, I, I, I just have found I mean, that's what's so difficult because, Doctor Lerner, I mean, not and, but he we he used use a, infectious disease doctor in Detroit, and he passed away a while ago, but he he was treating, chronic fatigue with very high doses, 3 to 4g a day for 1 to 3 years or four years for for chronic fatigue.

And he had a 30% significant success rate, you know, and I go back and look at that and go, well, you know, but when do you know to keep going and when do you know when it's time to pull off, pull up stakes and move on with treatment.

Right. Yeah. Yeah. No, you know I know. So you'll get some of those and maybe they get better because they moved out of their moldy apartment. Right. And that's why they got better.

Yeah. No, I mean that that that is, is is why, you know, hopefully, I don't know. I'm I'm going to enlist you on, another, a cause is, is and I, I spoke a little bit to, that to to Mary accurately, doctor.

Accurately, about this is, you know, is is gonna get, the the companies that we support with our, with our patients money, you know, to help us get more, observational studies done.

So we really have a, a better idea because patients, you know, are spending a fortune, you know, I mean, you know, with all of us, and we're all working really hard, but our data sets are too small, you know, because we're we're not treating things that are, the people are so different.

We need we need to be much more. How much more? We can't do what regular medicine does is it takes 100 people with migraines and it tests them, but added those hundred people, 30 of them are totally different than the other 70, right?

You know, because you pick one symptom and you lump everybody together. And that's not what happens in chronic disease, right? It's so much more involved, you know.

And then you throw around the cyclical psychological aspect of all that as well. Yeah. Well but I would love to do thing. You know I just realized, hey you've got all that spect data.

I mean really I mean that that's just a piece, you know, if we could triangulate information. I mean, so this is just a plea to move forward to our, our sponsors and everybody else in the world.

There is that, we need more, observational research, because if we call it research, then, the, the structure we

have in America today with the FDA, it becomes extraordinarily expensive.

But if we make it just observational, I think it can be done fairly inexpensively. It just takes more as more data is better. You know, I asked doctors data years ago, you know, because I still do provocation testing, even though it's controversial a lot for metals.

Clinical Judgment, Training, and Closing Thoughts

But I said can't, you know, because those are you have to tell your patient, you know, these levels are super high and it's a reference range for non provoke for random urine.

Yeah. So I asked him can't we have a provoked reference range. You know. Nope. Can't do it. Can't do it. They have the data but they can't go there. You know. Just put it say here right.

You can't do it this right because the government won't let them because then there in the. Yeah. I mean and that's you know, the desire to protect us is choking us basically.

So, you know, they have to kill for their stuff. Yeah. I understand yeah. No, no, I understand, but it is so frustrating because I had that same very similar conversation with Doctor Quigg.

Yeah. Of many years ago. Is that like, you know, you've been doing this for what, for 35 years? 40 years. They've been doing, you know, doctors data I think it's been around that long.

I mean, imagine thousands and thousands of tests. I mean hundreds of by now. Yeah. And and we're still stuck going, well, yeah. This is higher than we usually see.

Yeah, yeah. And that's all right. And so you have to have a whole lot of tests under your belt to know what's average. You know what's normal. Yeah. Yeah.

That, that, that, that, that is the you know what the training. Yeah. So that's another story is, is training, which I think a lot of people are working on now, training those of us in this field because, you know, this.

Yeah, when you get out of medical school or naturopathic school, you really don't have the background that you need to be making these decisions. Not even close.

Yeah, yeah, yeah. And, so hopefully we'll be there's a lot of good folks, leading the way now with a lot of trainings out there for doctors. And I'm really glad to see that's happening.

You know. So we should. Raffi, wrapping up, I'm trying to go back to, I think we've covered most of the things I wanted to cover with you. Yeah, I'm pretty comfortable with that.

But, you know, I, I really what I love is, that you're seeing people and more importantly, that you're overseeing other people, and I guess you're actually teaching a lot.

I mean, in your role, do you do a lot of teaching? I do, yeah. Well, you know, I, speak a GPL all the time, several times a year. So all the folks who are coming in, for those trainings, and then at the clinic, kind of overseeing sort of what we do, and we're trying to get a lot of our, our, you know, nonfunctional docs to at least consider doing these tests or, you know, or when to test.

Yeah. Because, you know, those the 40 plus psychiatrists that we have, are are not all functional medicine docs by any stretch. So, you know, they know what we do, but to kind of open everyone's mind about things like this and where it might come into play, and maybe to have some, you know, increased suspicion about what?

What's going on with the patients? Yeah. Well, I think, you know, you said it right in the beginning. Is that the thing that always if something has developed when somebody, you know, a significant change in function when you're

past 25 or 30, you know, I mean, that's it's a big red flag.

I mean, this can happen at age five. You can have an exposure. But when you hit but if you've been normal, functional, doing everything you wanted to do and something falls apart after age 25 or 30, you should be really looking for toxins and infections because that's high on the list.

You know, we we usually don't fall apart in the in the ways that bring us to, functional medicine. Doctors just by aging. Yeah. Yeah. Something happens to be.

And have you always been this way is my big question. Or if you were, you know, when did things change? And that's when you start focusing. Yeah. Well, I, I think on that Pearl, because I think that that's always been a guiding light for me to know if the person's in the right place.

Because one thing I hate to do is, is be treating somebody with my, my methods if what they need is the magic pill from some specialist, you know, because they have a clearly a clear cut disease and, yeah.

So anyway, Mark, really a pleasure chatting with you. Thanks for having me. Always good to talk to our fellow folks that are here in light. We're doing functional medicine.

Well, we'll get out there. And I said, I hope that what I was hoping is that, the patients who need this information so they can at least go back and ask the right questions to their physicians.

And I think that's what the important messages is. The more patients know, the better chance they can get, what they need. Because, yeah, you still have to be an enlightened consumer.

I hate that term. I'd rather. But I guess what we've we're moving past patients. Knowledge is power when it comes to. Yes, yes. Most things. Yeah, yeah.

Okay. Well again, thank you much. My question.