Misdiagnosed & Dismissed? Are You Overlooking These Tick-Borne Co-Infections Transcript

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Introduction and guest background

Hello everyone. My name is Doctor Richard Horowitz and I am the co-host of the Doctor Talk Healing Lyme Summit 2.0. It's my great pleasure to introduce you to someone who you probably know in the Lyme community.

A good friend of mine and colleague, doctor Tom Moorcroft. We are going to be discussing today diagnostic and treatments for tickborne co-infections, including bobcat and Bartonella, which are very important in the chronic disease population.

So, Tom, I just saw you and I last just just a couple of days ago. Thank you for joining us for this particular episode. Yeah. Rich, thanks so much for having me.

I mean, just it's an honor to be here. And it's also kind of a, a weird kind of experience and so grateful to be doing it because, I mean, if it weren't for you and all the early people in islands, like, I wouldn't be here personally and professionally, I wouldn't have been able to after I got over the personal Lyme journey.

And the busier. I wouldn't have been able to be here if it wasn't for your professional and, guidance as well. So it's, it's just an amazing honor. So much gratitude.

Thanks for having me. Of course. My pleasure. Tom. I'm sure people actually know quite a bit about you, but just tell them a little bit. You were sharing a little bit about your personal journey with Tick Borne.

You want to just let them know kind of how you, as a physician, kind of got involved in this whole thing. Yeah. I mean, I think Richard came from in the past, I the short version of the story is I got bit by a tick and multiple times throughout life never really had a problem until the one time that I didn't see the tick. So then I got a big rash.

I had a lot of brain fog and joint pain, almost got fired from my job, but mostly they knew I was a hard worker and they were just concerned that my productivity went down.

And my boss one day found me staring at a computer screen and drooling over myself when I was working at, the Institute of Ecosystem Studies or like Rick Feld and a lot of the people in your neck of the woods are, now called the Carey Institute.

Unfortunately, like three quarters of the people who work there had Lyme and no one seemed to know who Richard Horowitz was, even though he's 20 minutes down the road at best at the time.

But, I got treated for ten days. I was sick for the next eight years until someone, some of the other early people in the islands, I happened to rotate through their office, and they just I, you know, I was feeling so bad, I was like, brain fog and fatigue and joint pain and, like everybody, I went to all the doctors.

And it was before I knew all the things that we're talking about in the in this amazing summit. And I was just trying to follow their, their, instructions and everything was it didn't work.

Oh, most people respond well to this medicine, but you're responding differently, you know, and it's all that. Every time I went to the doctor, it was an excuse of why it didn't work.

And it was really I felt kind of really, you know, like my experience of who I was was not valid. They were trying to tell me it was all in my head. And then I met these amazing doctors where they were seeing other people like me.

And for the first time in almost a decade, I was like, Holy cow! Like, there are other people like me. And so I felt like I had a community and I wasn't just out in the cold by myself, but I also felt hope.

And so ultimately, if, was a combination of doing personal practices where I changed my lifestyle, my diet, and really sort of brought my energy back into my midline, so to speak, with some yoga and some other meditation.

But then it was I needed to get a proper diagnosis. And so I got diagnosed Lyme in Derbyshire. They worked with me. I got dramatically better. I always like to tell people at the time we're talking, it's about 12.5 years.

It's zero symptoms so it can be done. I know that you're on the forefront of changing that for people. And then ultimately I just went off in the practice to try to just help and serve people.

And one day somebody stumbled in and I was like, damn, you have Lyme. And then I was like, I helped her. Two months later, she referred a friend to hers from high school.

This guy was in a wheelchair, took 2 or 3 months. He got her out of a wheelchair, and I've never been able to look back. And I remember one day you said to me, do you really want to do this?

Because it's going to take over, but take over your life? And it certainly has. And it's been such a blessing. And I mean, I think it's through personal experience and also just seeing other people suffering and the goal to alleviate their suffering that I've gone down this road.

Yeah. No, it's a it's a great point. And look and the thing is, is we are blessed in a sense they these are very challenging patients. But because you and I have been on the frontlines for so long, we've been able to figure out effective diagnostic and treatment protocols and what we're going to discuss today. And you're just brought it up.

You had an experience of the bioscience, right? I was I was the first doctor in Dutchess County, where we're living, to actually diagnose and treat the disease.

It was actually a similar story. I had a young woman in a wheelchair for five years, could not walk. She had chronic Lyme, was being treated by one of the Lyme giants at the time.

But she came into me in her early 30s with drenching night sweats. And, you know, I went through the differential diagnosis like you're supposed to do as a board certified internist.

It wasn't hypothyroidism. She'd not been out of the country with malaria. She didn't have non-Hodgkin's lymphoma or TB. She didn't have drenching sweats with a cough or mediastinal lymph nodes.

She didn't have Brucella Q fever, like we ruled out all the things. She obviously was in a menopause in her 30s. And it turned out that, in fact, we sent the ticks from Rick Oswald's lab, which when Rick and I connected for the first time, through Jill, one of our, fellow camaraderie.

And, we sent him out to my genex and other labs, and we showed that there was BBC in the ticks. We showed the health department and the insurance company's over 100 cases of PCR positive in the blood for BBC of micro D with antibodies, with fresh testing.

They still told me. But BCA does not exist in Dutchess County, New York. You're making this up.

Why co-infections matter in Lyme

And I guess all my patients were to who are getting better. I'm I'm a great placebo master. Where I convince people they're. Well. But ultimately, this woman who was in a wheelchair, we gave her ten days of met prana Tova Cohn to death from.

And when it worked, right when? When the drugs worked. We're going to talk today about why it doesn't work. And

she walked out of the wheelchair in the next several months, and she's been skiing.

Right. I know you're a you're a big skier, and she's been great ever since. So, so let's talk a little bit about we're going to focus today on, on the co-infections.

But easier Bartonella and maybe some of the other co-infections that, you know, are affecting Lyme patients. I know you see it and I see it, the major ones we learned about years ago is but busy am I Cody Duncan?

I came along years afterwards. We published a study back several years ago that we were finding at not just in the Pacific Northwest, but in other areas of the U. S.

and, there's still controversies on this, by the way, because we heard from Galaxy right over the weekend when we were at the Islets Conference that, some people are not finding Duncan I, but I, Gen-X is finding it right on there.

But Busia immuno blocked all the time. And now the new kid on the block is the B0 to Coley. Right. So let's talk about why don't you tell me a little bit about, your experience diagnostic testing.

Let's start off with diagnostic testing and and why people need to look for. Yeah. Why it's so important. Yeah. I mean, I think what is really interesting, in my personal experience, I kind of skipped over it quickly when they gave me the docs a cyclin, the guy said, hey, you'll be good to go with ten days, right?

But the first four days, it was July. I was 23. I was laying in my parents basement where it was a little cooler than July. Usually is in Jersey at the jersey at the time, and I was having alternating shakes and chills, alternating with sweats.

So I mean, I wasn't a menopausal or menopausal man at 23. You. Got my joke. You got that joke after a while. You're not in menopause. Yes. That's right, I agree with you because like but it's like I always say like it's funny when I go over the questionnaires, I see about 50% children.

And when I have a four year old boy who's in menopause or a six year old girl who's in menopause, it's it's you got to look at the bosses, you know? And so one of the things that I found is, like, I always learn from you and like Charles Ray Jones, who was so influential on so many of us, including myself, is that if you're not getting better, you have to look for a co-infection.

There's a reason that lyme's not as easy to treat as we like, and some of it's the Lyme itself, and some of it's that there's co-infection. And I think that over the years, I think we've all learned that co-infection is the rule, not the exception.

So it's one of these things where when you have people and going back to my, my, my story. Right, everybody I went to is like, you kind of look like depression.

You kind of look like bipolar depression. You kind of look like fibromyalgia. But it's all not quite, you know, and it's like when I see the not quite and it doesn't make sense, you know, like the a the kid with acute OCD and rage out of the blue, it and a kid who's normally been chill.

Then I'm starting to think that there's been another infection that might have triggered something. And I to your point, the reason we have to test for these things is they're they're way more common than we thought.

And if we go back over the years, I mean, oh, there's like 20,000 people with Lyme every year, then it's 36. Oh now it's a for, you know, 300 and something.

Now it's 476,000. Oh, by the way, the 476,000 may be a seven fold, you know, understatement of what it really. And we're probably looking at a half a million people a year getting Lyme and like, if you take Connecticut, any given year, there's like 55 to 90% of the ticks have Lyme disease or a strain of Lyme.

But then you've got at least 8% of them, 10% of them every single year. They have the busiest. So if you're getting bit by a tick, you're exposed. And even if you don't see the tick bite, the biggest thing, as you know so well, most people are getting from the same nymph tick the size of a poppy seed.

So the exposure on the East Coast in particular. But now with global climate change across the country, in the globe, everybody has an opportunity to be exposed.

You know, I've had two colleagues call me. They had somebody in Oklahoma where there's no Lyme. They got bit by a deer tick, got the M rash, got the positive bloodwork, had a positive response to treatment, and they said it wasn't there, but they had the tick and they tested it and it had Lyme and the bees in it.

And you're like, oh, it must have come from a songbird. I'm like, well, yeah, but it's still there. So we're all getting the exposure risk. And part of the problem that I seen too is I remember almost like a Venn diagram, like, you know, we used to try to say symptom recognition.

This is always Lyme. This is always the bees. This is always part. But I think as we've gotten more and more toxicity in the environment, both physical toxicity as well as emotional toxicity, that the overlap, the blur has become bigger.

And so a lot of our presentations are people who don't really fit. One of the other, and they kind of look like multiple different things or a brand new thing.

And then you're like, well, my clinic, I'm a good clinician, but I also need some tests to help me sort through the the different pieces so I don't miss it.

And even one of the cases I presented at islands where, you know, I did the identical immuno blot testing on them, everybody had looked at Lyme and Bartonella found it.

They were treating it up, the yin yang and the and this actually, I have this one guy that I was talking about. And then I have a family of four. Same thing.

Everybody's treating the Lyme in the Bart and they never really looked at the Bézier. And so then I did. And because they had one time checked, a fish test through, you know, another lab, and it was negative.

They just blew it off. And I'm like, well, sometimes we need to look with the serology. And I learned this from you in the beginning. Sometimes you got to do direct look at some DNA PCR.

We got to look at an RNA fish test and the serology, the antibody tests. Most people are looking for. And I found the antibodies were positive. And all these people who had been treated for 2 or 3 years by really, really skilled clinicians and it was then when I found that the BCA and treated it, which from their symptoms it looked more Lyme, the B Bartonella forward.

But there were still those hints and the testing helped us make that decision. And then it just changes everything. So I think the thing is they're all there.

And the likelihood of you getting, if you've got one to have more than one is high. So utilize your optimal testing as well as your differential diagnosis.

Right. So when we talk to people I mean I always mention it's kind of like people in general. Obviously you can't say across the board, but it's for the most part people are getting the three B's. They're getting Borrelia, Lyme disease.

But BRCA and Bartonella, those three B's are showing up in the vast majority of patients. So the way we initially diagnosed it clinically and you started talking about the sweats is in the validated Lyme symptom questionnaire that we validated with the State University of New Paltz researchers back in 2017 and 1600 people on that

questionnaire, which by those for those of you listening, you can just download it from our website.

We can get better outcome. Just go under symptoms. You'll find the questionnaire, download it. Questions 1 in 22. Question one is day sweats night sweats fevers, chills that can be shaking.

Chills like Tom was describing flushing. Also you'll see. And question 22 is an unexplained cough or air hunger the shortness of breath. It's not related to asthma.

It's not related to emphysema. And people can't explain it. Those are the classic symptoms. And then, as you know, Tom was discussing with me, you'll also see these overlaps with fatigue and headaches and joint pain and even neurocognitive issues with brain fog and mood swings.

But it's usually the malarial symptoms that give people at least a clue that it's there. But but the problem with the serology and you're right, I mean, I do get positive serology, but the problem with the serology, and we usually talk about doing multiple tests like you just did, we will do serology.

We may do PCR is actually I do serology and fish testing most often because in the Lyme population who have Bartonella a lot of these people are immunodeficient.

So they're lacking immunoglobulins and subclasses. They don't make antibodies. Well, if they do make antibodies a lot of time, they're IG m, not IgG, because the B-cells have been knocked out to make long term antibodies.

You see it in Lyman and Bartonella. And if you're on IVIg you're doing, you know, immunoglobulin therapy. You can't rely on the antibodies because it's a pooled serum.

So then you have to rely on direct testing which is either PCR or fish. And we're finding between hygienic they're, you know, bbca fish test or occasionally T labs which does their 18 s but also the PCR Oder coli.

Right. We're seeing those fish testing be positive. So Tom, I think you're doing the same thing. You're doing kind of a panel approach where using antibodies sometimes PCR in fish testing to find them and using the questionnaire for symptoms is that we're doing pretty much the same.

Yeah, I think so. It is it's about the symptom recognition, knowing there is an overlap. I mean, other things that I noticed a lot of our kind of the bone pain in the rib pain, perhaps because of, you know, boobs as a, you know, likes to live in red blood cells and that, kind of that head pressure.

But, yeah, everything you're saying is like, you got to look for those key symptoms. But then, like, it's funny that whenever I talk about this, I almost forget to mention I have I have a hypo, a glob, anemia or Covid.

And I found out is I diagnosed myself and then I figured it out, my dad and I was like, oh, crap. That's why dad's got his issues. It turns out my mom also gave it.

So both my parents have created what are the chances? Right? But thankfully, my brothers and my daughter don't have it, which is great. Thanks to my wife, Jill for bringing the good genes in the immune system function.

But yeah, the labs work different in people who have have, hypo gam. And just in general, whether you have it congenital or acquired through all these infections, like you're saying, it's really important.

So we do look across the board and and sometimes they do it all at the same time. Sometimes I'll, I'll, I'll stagger it a lot of other people. And I know you're doing this is like we're looking at heavy metal toxicity.

We're looking at mold toxicity. Because to me it's really that chronic toxin overload. You know, it's like I'm a vessel, I can hold this much and I'm okay.

But what? As soon as I overflow, it's a mess, you know? And really, I think that's where you look at the EMRs

model and stuff. And it's a great way to help us make sure that I've always said, number one is like all of Internal Medicine and Harrison's and the rest of it is the stuff that actually keeps our patients sick.

So I really think people should dive into your model and, and look at a way to all of it, you know, but specifically for tickborne stuff sometimes. And the other thing I always found interesting about Lyme in particular, and I know it overlaps with the other infections, is over time in an untreated or a treated individual, their antibodies will fluctuate.

And if you look at like Monica Ember's like I think it's 2017 study or second really big one, that kind of like hit the world by storm. At least a Lyme world showing that every individual has multiple.

If you measure different antibodies to Borrelia, they have a different response to each one. So there's intra individual individuality. And in her individual individualities meaning just like everybody, it's like there's it's it's all bets are off.

Because every single different antibody a particular person will respond differently to. And then you and I would respond differently across the board.

So this is a really challenging place to be. And I really agree with you. Got to look at the different testing and make sure you're getting it, you know, figuring out what the symptoms are, figuring out what they have so that then we can actually adequately treat them.

Testing strategies for Babesia and Bartonella

Yeah. And regarding the testing, I mean, I for patients that say I can't afford, you know, I Gen-X or T labs or any of the other ones initially I'll do a Bayesian micro T and a bobcat. Done.

Can I locally through lab core. And there can be cross-reactivity with done can I with some of these species. It's just what I think gets confusing for doctors after a while is, you know, they learned in medical school you need a fourfold increase in titers.

We see many people that are exhibit low level, you know, showing exposure. The immune system doesn't get that big hint. And it I think it confuses doctors a bit.

And also they learn in the textbook presentations of Berbizier. You should have hemolytic anemia where the red blood cells burst apart and you get kidney failure and the liver functions go up.

And I've seen two cases of that in the last, you know, 40 years of clinical practice and 30,000 people. I don't see any of the textbook. Yeah. I you don't see it either. Right. And these were busy case.

No, it's it's it's interesting. I'll see like I'll see a little lower. Like like a general. Like I should have a higher hemoglobin or, you know, red cells.

And then women in general. But I'll see guys who drift down and they look more like, what of what a menstruating female might present with. But for the most part, I've only seen that in acute, like, you know, a, you know, a guy who went his hemoglobin from 16 down to ten in a week because he got Lyme, Borrelia, Miyamoto A, the Busia, Bartonella and and a plasma from a single tick bite.

And we have it all confirmed with DNA and, and I don't even know how the guy made an antibody response, but he was nearly hospitalized. But the beauty of his case is like it only happens.

And, you know, you had the low white count from, you know, either the plasma or the early Miyamoto. Yeah. The low, you know, he had, anemia from the baby, presumably.

And then all of those can hit out platelets. Everything drops. So he got a huge load that's so uncommon. Most people are kind of that, that subclinical, subacute presentation, it kind of creeps in over time.

And I think this is what we're all looking for. What to why the doctors are so confused. We're taught that like one out of a thousand presentation, the acute the busy of that is really, really bad, really life threatening potentially.

Whereas most of our people just get enough, but be easier to allow that to be easier to get a hold in your body and start to cause small trouble that you don't really notice for 3 or 4 weeks, or maybe 3 or 4 or five months and sometimes longer.

So I think that's really the challenge. We're taught that it's almost like typical chest pain. When I got in the medicine, everybody say, oh, a typical chest pain, typical chest pain.

And then like, well, women have atypical chest pain. And then they research atypical chest pain. And they found out that the atypical presentation was the most common presentation in men and women.

So we originally thought it was this finite thing. And we've learned that it's not. And I really think that that's what you were alluding to is the presentation is not the textbook presentation.

Right. And again, for those for those listening, I'm Thomas just bringing up some important points. We're discussing today mainly believes your Bartonella but also other tickborne co-infections.

And what Tom was just discussing with you was that in patients to get an acute tick bite, if you get a low white cell count, leukemia, low platelet count, thrombocytopenia, or elevated liver function strands, laminitis, either one, two or all three.

If you get that early on before the antibodies form for early archaea and a plasma. Rocky mountain spotted fever Q fever, typhus. Briley memo toy heartland virus, Bourbon virus.

All of these things I just mentioned can cause these same initial symptoms. So that means you've got to get people on doxycycline immediately, including kids and pregnant women.

This comes direct from the CBC because you can die if you don't get in doxycycline early. Some doctors have waited for the antibodies to form, and at that point it's too late.

Rocky mountain spotted fever. You don't always get the rash on the hands or the feet. So what you were just seeing with clinical symptoms and lab testing is actually very important.

And in Berbizier, you know you can get it from a tick bite. You also get it from blood transfusions. A mother can transmit it from the mother to the fetus.

You can get it from solid organ transplantation. And recently with Bartonella, they just showed also that solid organ transplantation apart from fetal transplantation, blood transfusions it can happen through a of lace that you get this.

It's not always right through a tick bite. Well and I think Bartonella you really bring up a really great point. Right before the pandemic hit, I was actually talking with some people.

We got to get back on this. I see a I have a, group of, patients from New York City who basically don't have pets. They they they're not like, going out into the woods or anything.

They pretty much a city dwellers and in in apartments and stuff. And they're all all of them have this really high likelihood, like 75% of this population, and especially in Brooklyn and the Bronx and stuff.

We're coming in with Bartonella. Hensleigh. Like, it's just like so much more than I was expecting. But also without evidence of Lyme or tick exposure.

And then we start I started diving in the literature you've got Bartonella can be transmitted from, you know, house spiders, you know, and a lot of people know about pat scratches and cat bites and all that.

And then fleas and fly and sand lice and or sand flies and all this. But then the other thing that, you know, especially when pans and pandas with Bartonella can mimic it, Bartonella can trigger it in children.

You know, there's sort of the acute neuropsychiatric presentations associated with a lot of these things. Bartonella can be transmitted by lice. So I've seen, like, lice goes through a classroom and then I get a couple of patients, one's got acute onset ADHD.

In a previously really focused kid, the other kid has acute anxiety or rage. The other kid has acute OCD. And and it was teachers when I talked to them about this in school systems, they're just their minds are blown because people are saying always trying to think about a is Bartonella transmitted by a tick?

Well, we don't see Bartonella in the northeastern ticks all that commonly. But if you're down in North Carolina or in other parts of the country, you do.

If you're in the Netherlands, even as back as far as the 90s, we know that like 77% of the ticks have Bartonella species and only about 56% of those ticks had Borrelia.

So there's a lot of exposure risk. And I think, you know, without diving into like different rabbit holes for each one of these, we know that it's complex.

And the exposure risk can not only be, at least for Bartonella can be a lot more than Lyme and bees. Derbyshire. And then with the bees. It's funny. We start the you you talked about.

But Duncan, all I know is I don't know what it is because some people, you know, they've done tick ticks in the northeast have especially in Connecticut, in New York from toe work when they do the DNA of the of the Zoetis scapular tick.

We've got the bees in my crotty and the bees here. Oh, the coyote I and you know, a year ago I said there's only two cases of DNA proven to be zero to qualified people.

And then like every two minutes, we have another DNA sequence of somebody with a coily I so I don't know. And then but I've talked to other people like get identical like we don't see eye to eye in human samples, but other people do.

And then researchers at Yale are like, every tick we look at doesn't have it all or doesn't have Duncan eye. But all I know is that there's Mike Crotty and then there's other, and the other is sometimes harder to treat.

So like when I get when you're when I do quest, a lot of times I get a 1 to 256. But a Duncan I antibody IgG or they call it while one. I mean that I think is probably something else that I've long noted even before we had the research over the last 4 or 5 years, you know, into what herbals botanicals will work and then this year, how to finish Coon works.

I've seen it's hard to treat. And so I've just been treating it like really hard to treat the Bézier irregardless of what the name is. Because what I know is I published in 2014 on the first cases of the, Borrelia Miyamoto and I think you published 1 or 2 at the same time.

And, you know, and it was funny because the other person on my paper was Katherine Glassman, who I know has done a lot of training with you as well. So it's like the the three of us are saying, hey, look, this is a real human infection in the United States, you know?

And that was those were in the first 73 cases known in the world. But when you look back, we've known Borrelia Miyamoto is in the same damn tick that gives you Lyme disease for 30 plus years.

And then when they went back and they look at the stored samples, oh, all the people were at like a 41 band. Positive. And not any more. Well, it turns out that most of them who had wishy washy Western blots for Lyme and

it's all in your head disease actually turned out that Borrelia Miyamoto.

Right. So we know if they're in the tick we can get them. And so we should be looking for them. We should be treating them clinically. Now it's it's a very good point.

And just to finish up a little bit on Berbizier before we move on to Bart, because these are really the two big ones that are keeping people ill. You had just presented a great presentation at Islands on to Kwon Now years ago.

The treatments for Bbca was clindamycin and quinine. I used to joke with people that if they didn't behave themselves, I would give them this treatment because, you know, it.

I mean, you know, it's a horrible treat. It would give you a ringing in the ears like an alarm clock was next to your head for 20, you know, 24 hours a day.

There'd be nausea, they'd be vomiting, they'd be rashes. You can get prolongation on and very difficult to tolerate. So most people when two met on October Conan's death from Mycin, it worked for many years.

And then all of a sudden it didn't. And back in 2016, there was an article published that there's genetic resistance now, right, to the Bayesian microbe.

Regarding Duncan, I, the article that was published by Sunil Schweiger and, you know, Johns Hopkins researchers is, well, if we had a little bit of Japanese knotweed and Chinese skullcap and artemisinin and a cornea and krypto, Lepus, right.

These five verbs, we can get some good help. And it helps, but still not enough with these other species like you're talking about. And this is where now to Fennec Quinn and it's over clone or it's a Quinn and McClaren.

Right. With or without system with him. So just briefly because I want to make sure we have time to discuss Bart, I generally been seeing good results with Quinn.

600 milligram loading dose. This is what I'm doing over three days with a 300mg dose per week. Instead of 200, because I've had some resistant cases. Is that roughly the protocol you're using? You?

I know for you, you're using some tweaks with it. Tell people a little bit about your success with this new protocol. Yeah, I mean, I love it. And, you know, many thanks to the chicory bean women's lab at Yale for actually doing the work, because it's one of the few things we see a lot in, in Lyme tick borne illness, where we actually have a, in vivo or in, in a primate or a mouse in this case model to really guide us.

Because a lot of the work is just done in petri dishes and we don't know how it works in a, in a, in a human or in another mammal. And the beauty of to Quinn is, yeah, we can do loading doses of 600mg, 200mg a day for three days, and then 200 or 300mg a week.

And I'm finding that, like a lot of people do really well with the standard protocol. Some people do, like you said, need that extra 300mg. Definitely.

I typically am combining it with, liposomal crypto lapis, and a combination of artemisinin, liposomal crypto lapis, and liposomal, Japanese knotweed.

Babesia treatment and tovaquone protocols

But then adding all those other herbs you mentioned in its tinctures and then based upon what else, they have a layer. And like the A or the rifampin and and I've even been, you know, done people with dap so and and to Fennec Quinn, which I think is a more advanced protocol.

It's definitely not the easiest thing to do. But the thing I love about it, and especially since about half of my practice

is children, it's not, you know, to Fennec Quinn is FDA approved for malaria prophylaxis and and radical cure of vivax and evali in certain forms of a malaria but only 816 and up.

So below that we are using it kind of off label for that. Anybody using it for the at the moment is technically off label, but the Australian Therapeutic Goods organization, which is kind of like our FDA, has studied it down the children as little is young as two years of age and found safety.

And they've even in, in in extreme cases done it in children as small as five kilograms generally you know, 12 pounds when when it was life threatening and they found it to be safe.

So the beauty is I've used it in younger children and I can load them at a weight. So some kids need lower doses because they're smaller bodies. But the once a week dosing makes it.

It really helps across the board in children and adults that we can change the dose, you know, and we can get really therapeutic levels only once a week.

So compliance is really big, especially for our children and for our really sensitive adults are sensitive kids. I've even, you know, I had a few people start to split the tablet.

No one knew if we could do that or not, but I contacted the companies that make to when there's, you know, 60 Degrees Pharma and GlaxoSmithKline. And as far as they know, that's safe as well.

And clinically, it's been safe. So we have a lot of flexibility. We can go higher. I always warn people we don't need to go like super duper high because the pharmacokinetics basically if I take more, I get more in my blood.

So your 300mg is a really well-studied dose and it's high enough. You know, what's interesting is if you do 100mg a week in most adults, you're going to get to what Doctor Ben Moon's lab studied for Radical cure of the bees.

The my Crotty and the bees had done Carnegie which is great without relapse when they removed it and let the mice continue to live, they were fine. And they also developed sterile immunity to it.

But the beauty is like, we know that they were doing half of that dose. So 100 milligram, essentially a 300 milligram load with 100mg a week. And then they added a toe clinic, kind of our standard doses.

So if we need to, because that was an acute the easiest study. We don't have chronic ones yet. That's being worked on, as you know. But we know we can do 200mg safely because they've studied that in humans and 300mg.

But we know those doses are double and triple what we need for care, at least in a mouse model. So we know that we're in a good place, I think. And and you've you've used it effectively.

And so Evie and and in the thing for people to know is it was really only in January of this year. They really started publishing with Louie Louie. Marco had published on who I work with at the New York State Department of Health Tick-Borne working Group.

They've been publishing with worms this group also that for these people that are immunosuppressed that had failed classic treatments, that's effective.

Quinn basically is helping. And ultimately a lot of our patients are immunosuppressed because they have chronic, very mild deficiency. Some have had long Covid.

They have T-cell exhaustion where the natural killer cells and T-cells are working. Yeah. And we are definitely seeing better results with a fish testing.

I had one guy that was fish positive, by the way, five times in a row did to Quinn and finally ended up clearing it. So

I mean, we are seeing finally some success with it.

I think the, the final stages that we need. Because you're right. I mean, nothing approved yet for chronic Berbizier, but there are no effective treatments at this point except ultimately to panic.

Quinn. Right. We I need to just see eventually I'd like to see some studies of comparing to Quinn alone, to Quinn, with Mallory, to Phoenix, and with a token to the court.

And is it from Mycin and the resistant patients without IRBs? If I could, you know, design a study, that would be the ideal study. I would I would love somebody to give you, like $25 million to do the Dobson studies and the to again, because it's like we need to do like so many more studies.

But and one point I really like to make too, because you pointed out something so important. You know, ten years ago we were kind of okay with the Bayesian, my Crotty.

And if you have a lower virulence. But in my Crotty, even in the Quinn studies, you can do just a Quinn. But if it was more, more virulent or a higher load of my Crotty or Duncan period across the board, we needed a Tova Quinn.

And we probably need other things. But what we've seen in some of the newer studies that are looking at the need clinically, and this is coming out of the IDSA, you know, Infectious Disease Society of America membership.

What they're doing in regular hospital based infectious disease clinics is the Bayesian. My Crotty resistance to is it through mice and clindamycin and Ito.

Yeah. And it's one for different reasons. And so what you're seeing and I'm seeing and all the other dogs are seeing clinically and the patients are experiencing we're finding the science at backs that up.

And I 100% agree that's what you need to do. We need to do these studies where we I would love to see all those combined with dabs. And I would love to see the IRBs study with the meds in a mammal model.

We need this and it's coming. But I just think it's important to know that what we've seen clinically, the research is catching up, because I feel like our patients run out of hope sometimes, and they're like, we just didn't have the science to back up what you're experiencing.

And ultimately five or 10 or 20 years later, we get it. And in my career, I feel like in the beginning it was like 20 years later. And then now then I said, oh, it's like 15 or 10 years after the science catches up.

Now the science is catching up in 3 or 4 years. So we're picking up some pace and there is some hope. But I mean, we're really finding science that supports what we're seeing clinically and what patients are experiencing.

And that gives me a lot of hope for maybe you are we are on that precipice of making this not such a complicated thing. Right. And so again and of course, Tom, you brought up a great point is people need hope.

And you should know now with BCA, we are seeing definitely better success with the defense protocols, for some of these people, because in the Daptone protocol that I've developed, we found that if you had active Bartonella, which we'll get to in just a second, a lot of those people who did double dose apps, so it did not keep them in remission, they needed higher dose caps on pulsing and the BCA interfered in 50% of the cases where Daptone sometimes helps with BBC, it does knock it out in some, but it's maybe a quarter of the patients, not the majority, but we the defense.

Quins turning out to actually be, a good drug. The only thing I'll mention for those using it who are listening for doctors and patients, the two major side effects you have to watch for is hemolytic anemia.

You can get a little bit of a drop in red cell counts. Nothing like daps on up to two grams is what I've seen. And the hemoglobin Amia well, you don't carry oxygen well in the blood.

Six seven 8%. I will use some low dose methylene blue when I'm doing this protocol in patients generally glutathione lowers methyl hemoglobin levels. So it is vitamin C, vitamin E, cimetidine 400 twice a day is a trick I learned for the DAP zone.

Even e not a ND because any reductase is an enzyme that gets rid of hemoglobin. So generally well tolerated. Better than Lowry. I'm a flow queen. The cousin of, to Aquinas. Mefloquine.

I probably used in a thousand patients easily years ago. You don't. I haven't seen the same neuropsychiatric side effects. You have to look for it. Yeah, but I had not seen it into action.

But you do have to watch for a slight hemolytic anemia and meth hemoglobin, so. Right. Those are the big things you just have to prepare for when you're using this medication.

And I see I see a fair number of people, especially when you start getting increase in fatigue and brain fog, which is like a, I mean, the most nonspecific thing ever.

But but it's also have some anti of fungal properties, anti yeast properties. So some of our people have candida overgrowth or mycotoxins. Patients may want to know that they have that.

But most people are clearing up pretty quick. And I would agree like I love the lotus methylene blue with this protocol. Obviously you're using a lot more when you're on a DAP.

Some protocol, but it it's mostly well tolerated. And the 12 month study of healthy volunteers which again, different group of people, but they dose people with a three, 600 milligram loading dose and then 200mg a week for over a year.

They did see some people bumped up their math hemoglobin, but almost everybody, in fact, I think everybody in that study, if you just wait a couple weeks, it comes back down on its own.

And I've certainly seen people stabilize. Now our population is a little different. They're on more meds. They're sick. So you got to you got to manage it a little bit more.

But it's a fairly well tolerated therapy compared to many of the other things that we have to use to get people over the hump. Yeah. Good point. So let's let's turn to the next half of this.

And now discuss Bartonella, which is the other B that seems to be really causing havoc, right, in a lot of our patients. So for sure the problem with Bartonella is right.

First of all, there's only one study in ticks, Ixodes restless ticks. In Europe's they showed a specific species of Bartonella Bartonella bird. Let's see that it was transmitted.

But as you said, it can be spider bites, mites, rodents, fleas, lice. There's so many different species of Bartonella, there's over 18 pathogenic species.

And that's why if you just do a Bartonella hensleigh or Bartonella quintana or Bartonella Bexhill performance from your lab core, you're going to miss the species like Vin, Sony.

Elizabeth. Right. Some of the species we're seeing commonly show up in our patients. The problem with Bart is it looks like Lyme. It smells like Lyme.

But there's a couple of distinguishing features, right? Neuropsychiatric symptoms usually way worse. You were discussing Bartonella rage and OCD and A. D. D..

The neurosis symptoms is worse. We see the chronic variable immune deficiency when people have multiple Bartonella species. We just published this last year.

We found that the Covid the immune deficiency was worse, the neuropathy was worse. Those are the people that failed. Gabapentin, Normanton and Lyrica and Ellisville and duloxetine.

They run all these neuro, you know, drugs to try and keep down the neuropathy, horrible neuropathy, the worst autonomic neuropathy with pots. They were passing out more.

So those are the tricks. Pain in the bottom of the feet. Very severe. Right. You get the Bartonella striae. Very classic. They're like either reddish perpendicular to the skin planes or whitish sometimes in a Christmas tree pattern and Bartonella granulomas.

We'll see on the hands and and feet. But ultimately it's bad fatigue and horrible brain fog and they're under a and bad joint pain. Right. It's very tricky because it overlaps.

And that's pretty much what you're seeing. Also Tom. Like and it's interfering with the adaptation protocol where we're needing these quad DAP zone 6 to 8 pulses, at least four of them every two months to be able to really knock down the load of the Bartonella.

Well, it's like I talk to people a lot about this because I'm like, how do. And I know we both trained practitioners to help make it easier for other people.

And in our training program and just in general, I'm like, look, think about who all the players could be based upon your clinical. And even if you have a negative lab test or you're waiting when you're creating a treatment and like, this is what I love about the DAP, some protocol and and just even like the way I was trained, like, with Ray with kids is to build protocols.

If you're looking at Lyme and strep, well, but you can treat Lyme with things that really only treat Lyme and maybe strep. But if you're thinking maybe Bartonella and IRB easier, I can start coming into my intracellular drugs.

I can look at my eyes that through my eyes, and I can start to think about where am I bring in. Like if there might be a rickettsia infection like an in a plasma or something like that Rocky Mount spot of view.

I might bring in minocycline or doxy, but it's like I can build protocols where I have 2 or 3 intracellular drugs, which would be our classic way of looking at Bartonella, because, I mean, in test tubes, at least within 12 to 13 hours, we'll see two generations of Bartonella and resistance to macrolides, like is it through myosin or clindamycin or.

Bartonella symptoms, transmission, and treatment

Excuse me, chloride through mice. And so we need to be planning ahead. But when I plan to add more I'm like, how can I especially seeing children taught me this is how can I narrow down, you know, my protocol as best as possible, what cover the most?

And Bartonella, I'm always thinking about it. And I mean, unless somebody has got an Am rash from yesterday or, you know, maybe a week or two ago and they just have, like early signs.

I mean, it's so ubiquitous. I am always looking to build out my protocol planning that might be there, but it might be there so that, like, I'm not caught with my tail between my legs.

And what I love about the botanicals too, especially Crypto Lab is Jap and, Chinese skullcap and artemisinin. Now cornea to some degree. Is that there?

Those two in particular cover all three of the big beads. Now, if we add in the knotweed and the black walnut hall and we add in the, of course, you know, and all the other things you mentioned cat's claw, we're going to hit Lyme and Bartonella really strongly.

And cat's claws great anti-inflammatory and immune modulator. But if if I'm thinking that I can say like, hey, I might

be starting you and say, is that through myosin minocycline while I'm, you know, clinically while I'm figuring things out, I'm going to layer in those herbs because or even if I just started with one drug for whatever reason, which I don't think you and I usually do, but if you had to.

Right, right. But I'm just saying if or if you're new and you're you're nervous and you, you know, they have Lyme, but you're thinking they have the other layer on those herbs that will cover all of them.

So like, if I was on a zit through myosin IgM or minocycline by itself, and they happen that Bartonella, maybe it's not the best coverage by just adding the herbs.

But now giving myself a bit of a safety blanket. And I really try to teach like dab. So and for somebody who's new to this in the last like six months and they just took your course, could it be a little scary to start?

So if you want to start somewhere, add the botanicals and combine them as if they're your second or third intracellular, and then get your confidence up and layer these things in.

But just clinically, it's a great way to build a protocol for someone who's trying to develop confidence. And, you know, a quick side note, rich on dabs.

And like I remember that beginning where we were using it a little bit and it worked for some people. I've had people where they 50mg twice a day with doxy 100mg or 200, actually 200mg twice a day.

Six months later, I don't have a patient anymore because he's cured. I'm like, you know, very unusual for a chronic Lyme person to be that quick. But as we go through all these protocols, it's like we have steps that we can do.

We don't all have to go to like quad post DAP. So our first time out and a lot of people need that. But I think that a lot of the doctors I love and I know this is what you did for me, is you empowered me to learn how to think about it, and then we can layer these things in.

And I think it's a very exciting time as a former patient and my daughter actually had a Bartonella from her cat because we had cats before we knew about Bartonella.

And then, and now we can't stop having them because she loves them. And but they're indoor only now. And the other thing is like she had the Beasley had done Connie in the East Coast after a school trip and that we were able to get DNA and, antibodies.

Positivity. But what was so beautiful about it was I knew what to do right away, and I got to treat her really well in the acute phase so that she didn't.

It was less likely to have long term stuff. And she's not had any long term issues, but it was like I combined everything. And I think that that's really the thing.

And when you get into the Bartonella world and you get comfortable with treating Bartonella, I feel like you need double, triple intracellular. You need to add in your methylene blue, you need to add in your botanicals.

And I find that like the study at Hopkins where we looked at is that through myosin and methylene blue or rifampin and methylene blue being really good is great.

I would love for them to take the next step because when they put Z and rifampin together, which is our one of our classic combinations, it didn't work as well.

So I'm like, we need to figure out if we put the three together, if it does. Because one of the things that I find that really interesting about methylene blue, aside from all the wonderful stuff you highlighted a minute ago, there's at lower even at lower doses, but it tends to be across the board.

It helps extinguish it in this concept called fear extinction. And so a lot of times our patients are so gaslit, medically traumatized, or they just wake up every day feeling like crap.

And they're when they start to feel better, they're waiting, you know, for the for the ball to drop, so to speak. They're waiting for the ticking time bomb to explode and then the flare again.

But methylene blue has been shown to like we're in fear extinction, which is really defined as this decline in the conditioned fear response when it's no longer reinforced.

The problem is, if you wake up every day and you feel like crap, you're going to you're going to go, oh, every day is going to I'm going to feel like crap.

And I'm afraid of waking up feeling like crap. But when you have a week or two weeks or even four months after, maybe you've done your four quad dose daptone pulses and you're like, oh my God, like I'm actually getting better, but I'm waiting to get worse again.

And so methylene blue can and that might be some of the power, a small piece of the power of your protocol. Because now we can help the mind unwind and unlock, because a lot of it's, positive feedback loops in the mind.

If the mind is saying, hey, and the nervous system says the more fearful I am, the easier it is to be fearful, the more fear I have. And then every day I wake up in fear.

And then you treat the Lyme, the bees and Bartonella and let's say it's 80% better. You should have less fear. But a lot of times that feedback loop doesn't break.

The methylene blue can break it. Yeah. Which is great. And the thing about methylene blue when I first started using it, you know, the low doses that, you know, can actually help the mitochondria, the parts of the cells that make energy to work this even.

It's like ridiculously low doses of like eight milligrams. Right. They're using an eight. Milligrams a day. Yeah. They're using in an Alzheimer's in studies.

Now for the mitochondrial hypothesis that it's not all based on amyloid. It's based on mitochondria and the nerve cells in the brain that are just not working.

So it's a really interesting drug. But the interesting part about the fear response that you were talking about it, but getting better for people listening, the reason you can have hope is up until ten years ago, we didn't know that Lyman Bartonella were what are called biofilm persist or bacteria.

What that means is we didn't know. For example, you go to the dentist to get the plaque taken off of your teeth. That's a biofilm. If you don't get to it.

This port from Mona's gingival, they've shown port from Mona. It goes up into the brain. It's one of the things associated with Alzheimer's disease. Right? So you need to open up the biofilms.

And we've had patients. We open up the biofilms, they start hurting because your immune system all of a sudden is recognizing the bugs. And in the Daptone protocol we use for biofilm agents, some of which including, biocide and cinnamon, clove, oregano oil, stevia from Neutral Medics, which was published by Ava Shopee.

And peppermint oil. Because it lowers the mesi the amount of drugs you need to get some of these resistant bacteria. And when Tom was discussing putting drugs together, just know the rule of thumb was with some of these infections, more drugs works better than three three works better than two, two works better than one.

So for those of you starting off, you're not going to start that way. But the science actually says in culture and in the studies we published, the more intracellular drugs with biofilm agents, the better it works.

And right now the Daptone protocol is a nine week oral generic protocol. You wait two months if you have Bart, we do two week pulses. It's six days of high dose zap zone.

You never doing long term DAP soon after that, and on the average it's taking at least four pulses to not burn out. But when it doesn't work, by the way, in four pulses it's almost always long-covid.

And mycotoxins are usually the things on the top of the list that are interfering, at this point. And also for testing, just, you know, for those of you not sure if you have Bart, the Bartonella immuno blot for my Gen-X, there I am G and Bart fish.

Fabulous because again, it's picking up multiple species. I can't do galaxy in New York. But again, they're they're PCR, they're dropped. Direct droplet PCR.

Excellent for looking at these different ones. But you got to go way beyond antibodies because, they're immuno blight. And I'm sure, Tom, you're finding also key labs.

They're Bartonella fish. I'm finding they're Bart fish, just like I jinxes. Bart fish is picking it up in patients where the other testing is just not picking it up.

Yeah. I mean, I think again, we have to there's a few really trusted labs. And I tell people all the time and we worked with Janet to create the For immuno discount panel so you can get all four immuno blots for like, you know, half price, which is great.

So if any doctors need to know the trick to that, reach out to Richard I. We can get you the I have a custom order form. I send the people because it's like it's not on the official list, but it's an official test, but because it's expensive.

But I think, you know, you can either you can invest the money now and you can invest the time to do all the things you can do yourself, and you work with your physician and follow the protocol, rather than getting in the support group and going on Google and like net surfing and trying to get a better deal and trying to like come up with a better protocol, there's probably hard to come up with a better protocol than physicians who've been doing this for 15 or 30 years, you know, bring your ideas to them, but work with them.

And I've definitely seen that. And one of the tricks that you, you're reminded me of is, is you're talking about pitch into valleys and how it messes with the mouth.

And I think that, you know, when we look at strep and how it causes autoimmune encephalitis, and in children we call that that pans, a lot of it is probably recurrent.

Infection in the mouth, in the nose. And you'll get micro toxin illness. We've got colonization in the nose and the gut and then we have Sibo. Oh, well, why do we have Sibo? Well, it could be your crappy diet.

It could be that you have to be on antibiotics for a period of time. And don't think that botanicals don't mess with your gut. It might be less than antibiotics, but they can certainly change it as well.

One of the tricks I've used for people with brain fog, for kids who get recurrent strep, and we want to protect them in school and just people want to live longer, or people who have gone through a Sibo treatments and haven't really been highly effective, or they're effective, but then they relapse constantly, is to remember that there's about 100 million organism in one milliliter of saliva, and we swallow about 1000ml of saliva or a liter of saliva a day.

So that's like 100 billion organisms you're swallowing. I use biocide and dental side and toothpaste. And there are other parts of the dental program to work on the oral, biofilms.

And they've done studies that show the optimization of the oral microbiome. So that one, we're not having as much pigeons that can go into our brain and lead to early cognitive decline, which everybody if you have any poor oral health, that's going to be a problem.

But now you're also seeding your gut with a more optimal bacterial balance. And if I do that, in addition to all the proper probiotics that we're putting people on in these protocols, you know, then we can have a better immune response in our gut and less likelihood of dysbiosis.

And so it's like you're brushing your teeth 2 or 3 times a day anyway. Or if you're not, you should be we now we have a way to use those products to actually have our health optimization way beyond just our mouth.

And a lot of the other like, you know, the commercial toothpaste, those are crap and very acidic. And a lot of the natural toothpaste are acidic. So I'm just like, why don't we go to something where we studied it to show optimum microbiome balance, as well as me re mineralization of teeth and natural whitening, which because everybody kind of like that.

But the most important thing is it's healthy for your brain, it's healthy for your gut. And if it's healthy for those it's healthy for immune system. So it's just like one of these little tricks that I learned over the years, you know, to help people who are getting stuck in certain ways.

So we wanted to make sure we shared that as well. Yeah. And with the regarding the microbiome, we use four different probiotics twice a day. It's over 500 billion twice a day.

We use their Elac for master supplements. Ortho biotic, Saccharomyces bility. We haven't seen a case of C diff in years. And the probiotics 350 billion, which is acid resistant.

It gets into the lower gut. And I tell people, you know, a little bit of organic flaxseed, organic black seed. You know, we're using these fibers because fiber ultimately is helping butyrate in your gut in your you've got the good probiotics.

So we're finding that the the microbiome of the gut is actually staying in good shape as long as we're keeping down the Cali you're not doing, you know, getting candida overgrowth.

And you're taking these probiotics. So, Tom, quick question. We're so we're getting close to the end. You and I could be doing this for hours, clearly.

How how did people get in touch with you? Tell people the best way to get in touch with you. Tell them a little bit about your training course that you have for docs, in case all doctors out there are listening and want to also learn more about your course.

Yeah, thank you so much. Our training course is called the Lyme Disease, Practitioner Certification and Mentorship Program, and it's meant to be a place where we do mentorship primarily.

I do teach you all the concepts, reinforce it, recommend everyone go become an elides member, do the islands trainings, definitely do your trainings.

Practice resources and closing remarks

And it's a place where we try to help people on an ongoing basis. Really get to the place where the rubber meets the road and help give them real time feedback when they're trying to apply, like DAP.

So to double or quadruple steps and stuff like that. So that's at Lyme Practitioner certification.com. It's an amazing community. And it's just a great place for us to support each other and get real time feedback.

And then also our medical practice is Origins of health.com. So certainly see patients and always happy to help people who need it. On YouTube origins of health Instagram doctor Tom Moorcroft.

And we're just really trying to put out a lot of information too. Just like you are. You know, I know we both have some stacks and newsletters. We're just trying to get the information out there to help people.

And, you know, also, happy to share with, with you guys for, for your audience, our stress less live more e-book. It's really about energizing your life with purpose, passion and balance.

And I really tried to put together as a thank you to everyone listening, a book that really and an experience that goes through what I learned from healing from chronic Lyme, the BCA.

And thanks to you pointing this out to me when I rotated with you. Turns out there was also some heavy metal toxicity. But what did there was about 70% of my healing really came through.

What I did personally. And that, you know, and what I, how I took back control of my life and I did what the doctor said, but I also was doing these daily practices.

But I wanted to make it easy because I was in medical school and residency. I didn't have time for all this stuff. And most people are trying really hard, but they don't want to, you know, they don't have the time to make their whole life about being sick.

Because if you make your whole life about being sick, then you're going to stay sick for a really long time. So it's a balance of how to put that into your life.

And so I really wanted to share that with people as well. So happy to support all the docs. Happy to support all the patients. That's what we're here for.

And I feel like it's we require we need a village of people to do this, you know, and there just so everyone knows, like Rich's book says, you can get better.

And that's what we're all here to help you do. And, Rich, I just want to say thanks for the opportunity to chat. And thanks for all you've done for myself, my family personally.

So, so much love to you and your wife, Lee. But also professionally. If you hadn't, if, you know, I. But 20 Islands is 25 years as of, you know, for their fall 24 conference.

And I've been a member for 21 of those. And if it wasn't for those first four years before I came around there, I literally wouldn't be able to. I probably wouldn't be standing here if alive at all because of the chronic Lyme disease and heavy metal toxicity.

And so you've personally changed my entire life, and I know you've changed the lives of so many people. So just an honor to be. You couldn't be a nicer guy, Tom, who's in medicine to do it for you and your your wife and.

Oh, yeah, you're just you're just great people. So, it's been my pleasure to know you guys personally also. So. Yeah. So, so for everybody, we've been discussing today with doctor Tom Moorcroft, healing some of the co-infection genes that are very, very common, which is specifically BBC and Bartonella.

So thank you all for tuning in. My name is Doctor Richard Horowitz. You've been listening to, the Healing Lyme Summit 2.0. I'm Doctor Richard Horowitz.

You again will be tuning in with a new episode soon. Thank you, Tom, for taking the time today. It was a great talk and I look forward to seeing you all very soon.