Introduction and Dr. Horowitzu2019s Background

Hi, and welcome to another episode of the healing Lyme summit. I'm your host, Dr. Myriah Hinchey, and I am beyond excited for this episode. With me is our co-host of the summit, Dr. Richard Horowitz.

He is a board certified internist and medical director of the Hudson Valley Healing Arts Center. He has helped over 13,000 patients recover from Lyme and tick borne disease over the past 30 years.

He has numerous, articles that have been published, peer review articles, and he is one of the founding members of the International Lyme and Associated Diseases Society, or ILADS, and former president.

he is a best selling author of two books, and he does annual seminars all of which, I have to say, have taught me a tremendous amount of what I know regarding the treatment and diagnosis of tick borne disease.

So it is an honor to have you as my co-host. So welcome. And please tell our listeners before we dive into our topic, how you became to specialize in treating tick borne disease.

Yes. Thank you. Myriah. So, I'm also excited to be with you and do this together. this has been a long time coming, so I think people are really going to get a lot of great information, and we'll be very happy with this summit.

So, I got into this by accident. as probably many people have, I was doing my internal medicine residency at Mount Sinai in New York City. This goes back to 1984 to 1987.

I had finished seven years of medical school in Belgium, all of it in French. And, we didn't really learn much about Lyme and tick borne. There may have been some, but it certainly didn't stand out.

And I remember in my third year of residency, they were discussing Lyme disease. Someone came from Stony Brook, and they were discussing Lyme disease and telling us about this, bullseye type rash.

And I remember very distinctly turning to my friend Howie, who is in the last year of residency and saying, oh, yeah, I'll bet we'll see a lot of those in our lifetime.

And it's like, oh boy, those are words I wish I could have taken back at this point. So, I decided to move upstate to, the Poughkeepsie, Hyde Park area.

It was about two hours north of where my parents were living, and at the time, I didn't realize I was walking into the largest Lyme disease epidemic in the United States.

This was Dutchess County, New York. So when I came up here in 1987, I thought I would be a country doc and to diabetes and high blood pressure and cholesterol.

And it turned out, of course, that after a couple of years, people were coming in with tick bites. They were coming in with bullseye rashes. And unfortunately, you know, the the antibiotics didn't work and probably 70 or 75% of the time.

But the problem is, is that in about 25%, even 30%, the people would finish doxycycline and amoxicillin and they come back a month later and they go, doc, I still feel sick.

Now, at the time, look, you know, looking back in the early 1990s, we really didn't have a lot of information. So I decided to go to conferences like the Lyme Disease Foundation with Karen Forschner That's where I first met Dr. Burrascano and Dr. Ken Lehner and Dr.

Sam Donta These were the giants whose shoulders I have stood upon, right? And, I got from them that, you know, sometimes longer term antibiotics are necessary.

I learned about co-infections. So from there, I just kind of started my own research. I started looking at different treatments for Lyme, and 35 years later, 13,000 people later, I believe I have discovered I, I hate to use the word cure because it's a very strong word, but I will tell you, it is very possible that the Dapsone protocol that we're going to discuss today may actually be a cure for chronic Lyme.

What Are Persister Cells and Biofilms?

I now have patients who are years in remission where it has never come back, including, by the way, my wife Lee, who was sick for 25 years, and I call her my MSIDS gal.

She had all 16 points on my MSIDS map. She had candida and mast cell and migraines and food allergies and Pots dysautonomia with low blood pressure and babesia and bartonella she had everything.

She's now four years in full remission without one symptom. So I'm excited to share with people the the dapsone results today and talk a little bit about why I think we've really made tremendous progress in this field.

That's great. So before we jump into the protocol, let's get a little bit of background for our listeners. So when we talk about a persistent infection and we talk about persist or cells, can you explain to our listeners what exactly, that is talking about?

Sure. So in any infection, there are going to be bacterial cells that are different metabolic activities. So what happens is just like it's your human beings and you need to protect yourself and live in a house, and protect yourself from the rain and from the snow.

It's the same thing with the bacteria. They kind of decided a long time ago that it would be a good idea. Their home is actually called a biofilm. And these biofilms are basically these community of bacteria that get together and they form a matrix.

some of it is extracellular DNA, some of it is proteins, some of the sugar molecules, polysaccharides. And what happens is when the bacteria come together, they have these forms of the bacteria preceptors that are at the bottom of these biofilms.

Now we all have biofilms. When you go to the dentist and you go to take a plaque taken off of your teeth, that is a biofilm. In fact, all chronic infections pretty much are biofilm infections involving these persistent bacteria and these persistent bacteria are bacteria that are metabolically inactive.

They're dormant, they're sleeping. Or some of them may be slightly metabolic active. And the reason for this is in the biofilm. The way they created these biofilms is a lot of the nutrients in oxygen are at the top of the biofilm.

But some of these persisters at the bottom of the biofilm, they don't get a lot of oxygen. They don't get a lot of nutrients and they basically go to sleep.

What happens is they become resistant to antibiotics. They become tolerant. So they're not resistant in the sense that there's some genetic change. They're just tolerant from the point of view that if you keep using Doxycycline or IBr7 it will work for a certain percentage of these actively growing bacteria.

But the persisters in these biofilms basically are dormant or very, you know, slow, metabolically active bacteria. They will not be effective in the military.

Stop the treatment, whether it's herbs, whether it's antibiotics, these persisters are going to grow back. And that's part of the reason people get relapsing symptoms.

So is the biofilm itself acting as a shield that is preventing like the antibiotic from getting to the bacteria? Or is the bacteria learning how to not how to not succumb to that particular antibiotic?

Or is it a combination of both? You know, it's it's probably a combination of both. so basically these bacteria have discovered a very, very effective way of avoiding, the antibiotics and being killed by them.

And the problem with the biofilms is, yes, they are a protection. They are a shield. So that, for example, antibodies that want to recognize the bacteria to get a positive test, they can't necessarily penetrate the biofilms.

And these bacteria that are at the bottom of the biofilms that are, you know, metabolically inactive or, you know, slow growing, they're not going to be affected by it because the antibiotics cannot penetrate all the way down in there.

They even produce toxin and antitoxin molecules. they produce enzymes to destroy. Sometimes the antibiotics, penicillinases and cephalosporinase So they have developed a very, very highly evolved mechanism to avoid getting killed off.

So that even if your antibiotics kill off a certain number of the bacteria, the minute you stop the treatment, these vectors are going to grow back. And and you know, years ago, we knew that Lyme persisted.

And I want to point out that all of the work that I have done, all of the discoveries I've made, are really thanks to the researchers in the universities, like John Hopkins, researchers, Kim Lewis at Northeastern, Stanford University, Eva Sapi, University of New Haven, Kim Lewis, all of these about 8 or 9 years ago, for some reason, they all started coming out and publishing at the same time that Lyme was a biofilm infection.

Now, I've been doing this for 35 years. So if you think about this, it's over 25 years. I was not using biofilm agents. I was not using quote unquote persistent drugs.

And what I mean by that is that we knew Lyme persisted, but what we thought was happening is that there were these cystic forms, otherwise known as cell wall deficient forms S forms, L forms.

We thought that the At the antibiotics were killing the active, growing bacteria with the cell walls, but that the bacteria were forming these cystic or cell wall deficient forms.

And that's those ones coming back. And I think there is still truth to that. But ultimately, Dr. Ying Zhang and researchers from Hopkins discovered that where most of the inflammation in the body is coming from is from these persistence in the biofilms.

So when they discovered that Lyme was a persistent bacteria, I said, well, gee, you mean oh, it's a persistent bacteria like TB or leprosy, Mycobacterium infections.

And when I was at Mount Sinai treating a lot of the HIV patients at that point, they had TB, they had MAI Mycobacterium avium intracellulare they had tuberculosis.

So I got used to using TB drugs. And I looked at Dapsone, for example, and I said okay to drug with rifampin they use to treat leprosy, which is a persistent bacteria.

Takes a year. Right. To cure leprosy. I said, well, what would happen if I tried this drug and Lyme? And it was basically these university researchers that put me on right to the right path that we needed to be using very specific antibiotics, Dapsone is a persister antibiotic, methylene blue that we'll talk about in a bit, is a persistent type of drug that hits these cells.

procainamide is a persister antibiotic as is rifampin. So in these protocols we'll be discussing today I'm using for persistent drugs.

Dapsone Protocol and Combination Therapy

And I believe that some of the efficacy, the reason we're seeing such great results with that zone is we're using multiple persistent drugs that go after these persistent bacteria while opening up the biofilms.

Right. So we're using cinnamon, clove, oregano oil, essential oils and biocide in and stevia which discovered by the University of New Haven, Eva Shopee and peppermint oil that was used in Pseudomonas is for cystic fibrosis.

I take all these biofilm agents to open up the biofilms and then use these drug combinations to get where the bacteria are hiding, and we're really having phenomenal success.

That's wonderful. So can you elaborate on the protocol itself and how you use it? Sure. So when I started looking at the protocol to figure out how do we actually get a cure for this disease, again, I use the leprosy model because rifampin and DAP.

So it had been known that if you give it for a year, it cures leprosy. Now, interestingly enough, and this just came out about 2 or 3 months ago, Monica, members from Tulane published an animal study, and she showed in the animal model using rifampin and DAP, and it was one of the combinations it cured, like so when they gave this particular combo the same combo that's curing leprosy, it's curing Lyme.

Now, that's the protocol I decided to adapt. But what did I do differently? Well, because when you get a tick bite, there's a possibility of getting licky and a plasma relapsing fever.

Borrelli, Miyamoto toy tularemia, Rocky Mountain spotted fever, typhus, Q fever, cochlea these are all tick borne bacteria that respond to doxycycline.

So I said to myself, gee, it would make sense to add toxicity clean to rifampin and DAP zone right to this persistent drug regimen because all these other bacteria from the ticks are getting in.

And we want to make sure that we're covering them because we know that even doxy rifampin could be effective for some of these. It's been published in the medical literature prior.

So we started looking. This goes back to 2016. I started using very low doses of DAP, some 25mg a day alone, some with Doxy and Epsom, some with Doxy, rifampin, Epsom.

And lo and behold, it was fascinating that patients started telling me that their fatigue, their joint pain, their muscle pain, their neuropathy, their nerve pain, their brain fog, their psychiatric disorders, their sleep problems, it all started to get better.

It also started to get worse when they started having very severe Horkheimer reactions. Right. Taking this protocol. But when I started doing back in 2016, was looking at the doses of daptone and the different combinations to figure out, well, what was the most effective combination.

But I discovered if I have eight articles I published on this in the medical literature, and if you look at them almost every year, I was against these persistent forms.

So, for example, 100mg of daptone was better than 25mg of damson. And if you gave double dose snapshot, right, 200mg of daptone, it was more effective with one month of that treatment than 100mg.

And in fact, my wife had done six months of 50mg of daptone with Doxy. Felt great, relapsed. She was PCR positive, DNA positive in the blood for Lyme.

She did a year of 100 of DAP. Some felt great, stopped it relapsed. She then did one month of double dose DAP zone, four weeks of 100mg twice a day. She's been in remission for four years.

So what? We discovered it wasn't the drug itself, but it was the combination and the dosage of the DAP soon. And also for co-infections like Bartonella, which is now showing up in the vast majority of our population.

the last study I published, it was 84% when we had zero max two deoxy rifampin DAP zone AB, because zero max and rifampin hits these sisters with Bartonella and they had methylene blue, which is a persistent drug for Bart as well as for liking a vast majority of my patients very ill apart from the BCA.

So essentially over the last eight years, we've been playing with the dosage, with the combinations. All of these protocols, by the way, are published in the peer review medical literature.

Anyone out there listening can go to their doctor. The entire protocol, every supplement, every drug, every blood test, every EKG. I do, it's all listed in the papers so that it's available for you to get better.

And you've published eight articles right over the past decade, roughly on the Dobson combination therapy. That's correct. So and of those, one of those was a culture study which was done from the University of New Haven with a Shopee, where we showed that because we're talking about these biofilm persist reforms, what we discovered is that in culture, we did this with the a shopee's group, DAP.

So it alone hits the biofilm, persistent forms of Lyme disease, Borrelia burgdorferi. But if you add doxy in culture, it lowers that biofilm. Persist your load more.

If you then add rifampin to the doxy and DAP zone, it lowers it even more. And if you had zero max a four drug regimen, it works. Even better. And these same studies were replicated by John Hopkins and recently also by Monica members.

They found that the more drugs you use these intracellular drugs in combination with these persistent drug regimens, the more you use, the more effective that they are.

So yeah, there's eight articles. six of them are, clinical studies. And almost 400 patients at this point, who've done it. One was a culture study, and one was a really interesting case study on an autoimmune patient with Bizet's disease, which they used apps on.

And we didn't know what the rheumatologist threw at this person. The DAP, some combination therapy with some of these combinations worked extremely well in this patient is now doing much better.

So, yeah, it's almost 400 patients. Over the last eight years, we probably treated at least maybe a thousand patients with this protocol. So I'm hoping this year to begin a randomized control trial, to prove this to the world, because now that I have enough experience over the last eight years and about a thousand patients, I'm absolutely certain of what we've discovered.

This is putting a lot of people in long term remission. People can have hope. That's wonderful. I can't wait to see the results of this randomized study that you're going to do.

It's amazing. tell us a little bit about why it's important to use, the pulse. Yeah, it's a great question. So the thing about pulse therapy and again, this came out of, again, researchers like Kim Lewis out of northeastern, Kim Lewis did a publication back in 2015 and that many of us have used for neurological Lyme disease.

They showed that if you pulse the seven, it works better for these biofilm persist reforms. So what people need to realize and this is really important point.

And during this particular talk during this Lyme summit that we're doing with Healing Lyme is that many of the doctors out there and many of the patients are taking antibiotics every day.

They're taking the same antibiotics. They're taking them long term. They may be doing combos, but they don't take breaks and they don't pulse. And the reason you want a pulse is because what they've shown for other bacteria,

not just for Lyme, but for many bacteria.

And a good example is staph aureus. One of the infections you get on your skin if you give the drug oxy, which is the antibiotic used for staph aureus, and you give it continuously, what it does is the load of the bacteria will go down, but it stops.

It plateaus after a while and it doesn't go to zero. But if you give oxiclean and you pulse it, so you give it and then you lower the load and you stop it, the load comes back a little bit, and then you give the oxiclean pulse and you lower the load again and it comes up a little bit.

It's kind of like a roller coaster right. But going down and what they found is after a certain number of pulses, it is much more efficient to get rid of these persistent bacteria.

So the reason we've incorporated the pulsing is that there are certain number of people when they do the initial Daptone protocol, which is nine weeks.

Right. This is an oral generic antibiotic protocol using plaque. Well, hydroxychloroquine which alkalis is the intracellular compartment to make the the drugs more effective, we'll use grapefruit seed extract with it to help with the cystic, round body forms of Lyme.

Why Pulsing Treatment Matters

We use nystatin to keep down yeast, but we using mono rifampin, DAP zone with usually Z3 max if Bartonella is present, possibly with peers. In my. And we're doing this for nine weeks and the first month you go up gradually on DAP zone 25.

Week 150 week 275 100, then 100 twice a day for a month. And the last week, the ninth week. We do a pulse of four days of high dose DAP, some 400. If you are a patient who has had an M rash with post-treatment Lyme disease syndrome and no co-infections in the study we published in microorganisms about three months ago, we found that this nine week protocol would work and put people in long term remission.

Again. We need larger numbers to prove this. But the patients we did it for that, even if they had an M rash and they took DAP zone for eight weeks. But weren't completely cleared.

If they post a four day high dose DAP on pulse, they cleared the line. But if they had baht and we gave them a six day pulse, the 6 to 8 pulse worked better than four days.

But it wasn't enough after nine weeks to stop it. What we found is after eight weeks, two weeks, month, two months later, if we gave another two week pulse, that's it.

Two weeks of antibiotics, six days of DAP zone, that's it. And we do this between 4 to 6 times. What we find is we keep lowering down the load of the persistent bacteria, especially in this case Bartonella, to the point then that people do not relapse.

The only ones who will get over this with the first nine week protocol are usually patients that have taken DAP some prior. They may have taken lower doses like 25, 50, 100mg for a year, then stopped it.

I there's one of the women that I'm writing up, the case study. Now that you know, this happened. She's now over a year in full remission in college. but she had taken about a year of DAP, so an earlier on then did no treatment for years because she felt so well.

We tested her. She was Bartonella fish positive. Then she did the full nine week protocol and she's done. She's one year without any symptoms. So the pulsing is really necessary when you've got persistent bacteria like Bartonella.

So there are other persistent bacteria like tularemia, right. Mycoplasma species in some cases we will find to be persistent in patients. Q fever happens to be a chronic persistent infection.

It's unclear in those cases because we don't have enough experience how much pulsing is needed, because a lot of times they use longer term. But I suspect based on the literature that's out there, pulsing these antibiotics is the way to get rid of persistent bacteria.

So the answer, the cure, I mean, what we've all been looking for, right. The the grail that everyone's been looking for it, at least I've been for the last 35, 40 years of my clinical career is how do you finally knock this out of the body?

The answer is persistent drugs. DAP zone. Rifampin. Present. Amide. Methylene blue. Persistent drugs written up. Biofilm agents to open up the biofilms to get the drugs where the bugs are hiding, and then pulsing it where after you've lowered the initial load of the bacteria every two months or so, you go in and you pulse.

And for some people, by the way, the pulses may be, shorter, may be after a month, depending on how active the Bartonella is. But for staph aureus, they found this for Pseudomonas in cystic fibrosis.

It's already been published for other persistent bacteria. It's not just for Lyme. That pulsing is going to be most likely the most effective way to get rid of these persistent bacteria.

It's amazing. So I want you to take a minute and just let our listeners know how they can contact you or your office if they would like to seek care from you.

And if you have any exciting news to share with us, please do so. So for people that want to follow me regularly because I post on Facebook all the time, any updates in medicine?

it's Dr. Richard Horowitz at facebook.com. you can get in touch with me through the office with the email address is medical at h v h a kcom. It stands for Hudson Valley Healing Arts center.com.

and for those of us and for those of you out there who are listening and want to be part of the stop zone protocol or doctors that are interested, the email to contact us because we hopefully will be starting this later in the year is research at H v h A.com.

That is really the best way to get in. Contact our office. And I'll be doing a talk later this summer at Southeast Regional Integrative Medicine Conference, in Asheville, North Carolina.

And I will be speaking at Islands in San Antonio, Texas, later this year. So we'll have a lot of exciting things to share at that. Those conferences. Wonderful.

Okay, so back into this conversation here. Question regarding pulsing. Is there a certain rhythm or does it depend on, for example, if you're just tackling Lyme or if it's Lyme and Bartonella like as far as you know, how long on the combination antibiotics and then how many days in between treatment.

Yeah, it's a great question. So I don't know that I have the full answer for it. But what I can tell you, at least at this point, after I'm using this in, in many patients, is that if you only have Lyme and and again, you know, I think everyone's been looking for the cure for Lyme.

But I think what most people, again, who are not in the Lyme world don't realize is that the reason that most of these people stay sick is way beyond Lyme disease, right?

This is Busia, a malarial type organism that gets into people, that makes them three times more ill. Bartonella, which initially was known as cat scratch fever.

This over 17 different pathogenic species of Bartonella, you can't just find it on a standard lab test. But if it was just

Lyme and that's all that was wrong with you.

The nine week song protocol where you do the eight week double dose tap zone the last month 100mg twice a day with Dr. Minnow with profit in that zone finishing off with a four day high dose.

That's on pause most likely. And I say most likely because I don't have the numbers yet, but most likely based on what I've seen in a few case studies would put you into full remission.

It would be enough, actually, to knock the Lyme out of your body, or at least to the point where your immune system can handle it. Right? There may be a few left.

I mean, we have had patients, by the way, that have done this protocol, been in remission, got a Covid booster, and all of a sudden the symptoms came out because they over activated their immune system.

And there were a few of the bugs that obviously were hanging around. And then they needed to do a pulse, right, a two week pulse to get rid of it. But for the most part, if it's just Lyme, the eight and a half weeks capstone protocol with a four day high dose that's on pulse is probably going to be enough.

And that's what we're going to be doing in the randomized trial. But for Bart, which is really for me, the most difficult bacteria to get rid of, much more difficult than Lyme.

Bartonella requires usually one nine week course of this oral antibiotic regimen and then followed up by pulses every 6 to 8 weeks. Now, I do have Bartonella patients that relapse quickly, like they will tell me within 2 to 3 weeks off the protocol.

The symptoms are starting to come back. But the reason I need to wait in between the pulses is the capstone has four side effects that we have to control, and I call them do no harm.

Managing Side Effects and Bartonella

H is hurt time or reactions because you're killing off the bacteria and it's causing a lot of inflammation in the body. Right. And we can talk in a little bit about how to block some of that inflammation.

The second side effect of the capstone is anemia. So the anemia is because the stone affects the folic acid pathways in the body. So we give massive doses of folic acid.

We give look over in full in acid we give L methyl folate. the latest version we use from Xamarin is equal XR. It used to be called fortify. We give 200 to 300mg of folic acid to help prevent the anemia from getting worse.

But that being said, it does take at least four weeks. And for some people, 6 to 8 for their blood counts to come back to normal. Now they do come back to normal, but for some people it's quicker than others.

So regarding the pulsing, I have to wait for the blood counts to come back to normal before I do dabs on. But the beauty is, once you've done the nine week protocol, the next steps on pulse, if you have Bartonella is only six days, so you're not really going to get so anemic you might drop 2 or 3g.

It's possible, but it comes back very quickly because you're only on daptone for six days. So we have to kind of time these pulses based is on based on the labs coming back to normal. Right.

and also how people tolerated the protocol. The other side effects of DAP zone R stands for rashes. Even people that are sulfur sensitive, that can take bactrim.

sulfur Mattox is all trimethoprim. They usually can take it. If I'm worried about a sulfur sensitivity, I use an h1 h2 blocker, like, I use, for example, Zyrtec cetirizine.

Right. And I'll use it with Pepcid famotidine to block histamine to make sure people don't get a rash. And this has worked very well. But the less side effect meat hemoglobin Amia is where you don't carry oxygen well in the blood.

And this is a well known side effect from Daptone. And also for Daptone you can't be G6 PD deficient. There's an enzyme. You have to be tested for called glucose six phosphate dehydrogenase.

Easy to do through any local lab. You have to have that enzyme normally to do DAP. So an or the anemia will get worse. So we look at these side effects.

We control the cases using things like alkaline the body with glutathione and blocking these different inflammatory pathways, with alpha lipoic acid and NAC and glute and, broccoli seed extract, melatonin.

There's a lot of different things we can discuss later on about this, but people tolerate the protocol generally pretty well. But depending on how severe the Hertz's work and how severe the anemia was and how long it takes to come back, and also with the meth hemoglobin that resolves pretty quickly, usually within days.

We've got to wait a period of time for people to recover. And also it takes about four weeks for me to get a baseline. I find for some people on average for bark for pulses may be enough.

But for example, if someone says I have a woman now I'm writing up her case study. She was at 90% of normal when she started. She had pseudo seizures from Bart.

She had these shaking episodes and movement disorders that none of the neurologists could figure out. She had migraines and fatigue and brain fog. Right?

She was horribly sick, couldn't go to school, couldn't hold a job. She did the daptone protocol, but she was doing 40 taps on pulses because I didn't know you needed six days.

She did 3 or 4 of these pulses and then finally did a six day pulse and said, oh my God, doc, it brought out symptoms that I haven't had in a while. Well, now she's at 90%.

She's just finishing up her second six day pulse. Other people that have done 3 to 4, four day pulses, 1 or 2, six day pulses, usually they're in remission at that point, as long as all of the factors on the 16 point message model are addressed.

Now, when I refer to EMRs, MRD stands for Multiple Systemic Inflammatory Disease syndrome. And what it refers to is the fact that these people who come in with chronic Lyme, it's never just Lyme disease.

There's multiple overlapping factors of inflammation and downstream effects. So you've got to make sure and I know we're going to discuss this in a future talk in detail.

I've just briefly you have to make sure that all of these factors on the map are controlled. Because if someone still tells you they're tired and they've got joint pain and they've got brain fog, well, if you didn't test them for heavy metals or mold, or you didn't check their adrenals to see if they had low adrenal function, or you didn't check their blood pressure and pulse sitting and standing to see if they had low blood pressure with Pots.

Postural orthostatic tachycardia syndrome, which happens from linemen borrowed and happens from long Covid. If you don't get to all these overlapping factors, people may not need any more antibiotics.

It may be that you've actually knocked out the bugs, but what you haven't done is you have not addressed other sources of inflammation, the microbiome of the gut.

They may have mast cell in food allergies, the mitochondria of their body that the energy organelles that make energy. They may not be functioning. You've got to address all of these factors.

So in general at least what I'm looking at, it's generally a nine week oral antibiotic protocol. And somewhere between 4 to 6 pulses for part, where we then work on the Sits factors.

And usually within a year, I would say the majority of the people will be significantly better. Wow. That's great. So tell us about the multicenter, randomized, double blind, placebo controlled trial that you are gearing up to launch.

Yeah, this has been a long time coming. I was not ready to do a randomized controlled trial on dapt. So until I figured out the piece for Bartonella and because we just published this last one in microorganisms in 2023, and for those of you who've not read the article, if you just do a PubMed search and you look up Horowitz comma microorganisms, that's the journal comma.

September 2023, comma DAP stone. The article is actually a comparison of longer versus shorter pulsed high dose apps on combination therapy for the treatment of chronic Lyme TLDs and Bartonella.

Now, interestingly enough, I had two data mine 25 patients. Some of them had like 13 volumes of charts, and it took me over 200 hours to do the data mining.

I didn't know when I was doing the data mining. What I was going to find. What I found was the people who did the 6 to 8 pulses a longer pulses, definitely more effective for Bartonella.

And this, by the way, was perfect because Johns Hopkins researchers said, in culture, if you mixed Z3 Max with rifampin, with methylene blue, it took six days to kill Bartonella persistence.

But what Yunxiang and researchers didn't tell you is what were the doses of the drugs? What was the dosage of methylene blue? You know, how many pulses? That, of course, was unknown.

They just said in culture this is what was needed. Well, since we discovered that we now have really an answer for baths that we've never had previously, I had to use I. V.

gentamicin for some of these patients, which is a very toxic drug, and I was forced to do it in a couple of patients, and some of them did go in remission.

But it's a very tough drug to use because it has side effects.

Planned Randomized Trial and How to Get Involved

Now that I have this answer, I now know I can do a randomized trial because we figured out that if we do the randomized trial and we try and I'm not sure we're going to be able to get this, but if we try and rule out active bbca, meaning someone who comes into the trial doesn't have active day sweats, night sweats, chills, flushing, and unexplained cough or air hunger.

Right? The classic malarial symptoms of the BCA right or they don't have active Bartonella. What are some of those symptoms of active part. it can be a lot of eye problems, nuances of seizure, horrible neuropsychiatric.

Right. We showed this in the last study that the people who had the worst neuropsychiatric symptoms generally had Bart. And by the way, multiple Bart species and multiple species together, these were the sickest patients.

These were also the patients, by the way, who had immune deficiency, who had the most severe Pots disorder, anemia with low blood pressure and the most severe neuropathy.

So you usually can identify Bart because they'll have these typical stretchmarks striae on their body. Usually the skin planes are horizontal. It can be with Bart, but a lot of times they're perpendicular to the skin plane.

So if you see that Bartonella rash or you see granulomas, these like little bumps that are painful on the extensor surfaces of the elbows and the fingers.

and you have someone who says, I still have a lot of pain in the bottom. My feet. Horrible neuropathy seizure. That's somebody who still probably has active Bartonella, even if the tests are not showing it.

So we're going to try and rule out the patients with active the Bayesian Bart Bartonella immuno blot from my genic with Bartonella fish. hopefully Galaxy Labs will be able to do a PCR for their direct droplet PCR for, you know, the 70 different Bartonella species.

I genex will do a Lyme immuno blot. will we expect to be setting up a busy immuno blot for a fish? So we're going to try and rule out the most common infections that interfere.

But I want this protocol, this randomized trial, to show that we actually have an answer for chronic Lyme, that if you don't have active bbca, if you don't have active Bartonella and you do this nine week protocol, there's a very excellent chance you will be in long term remission.

As long again, as I said before, as all the variables are addressed. So it's going to be a very comprehensive study because we expect a three arm study.

50 people will do the full protocol the way it's described in microorganisms. There are, you know, the article that we just published, exact same, protocol that we just used.

Another 50 patients will do the same protocol, but without the absolute right, it will be a placebo, and they will be randomized and they would be blinded.

They won't know who's getting daptone and who's not getting daptone, but they'll all get methylene blue. They'll all get peers in amide. If we put it in there, they're all going to get exactly.

So it's only one variable that's going to be different. So we can show what is the importance of daptone. Can we maybe get people better without it. Right. It's a drug that is side effects.

Let's look at that. The third arm of 50 patients will be the control group. That will most likely be something like plaque. When will doxycycline the standard Lyme regimen that most doctors use.

But we're going to need a three months washout period. When we look at all the variables, we're going to have to do adrenal testing and hormone testing and mold testing and heavy metal testing and look for mast cell disorder and food allergies.

So everything I do in the office, when I see a new history in physical, we're going to do that in the randomized trial because we want to know, first of all, how many of these factors are keeping the Lyme community sick, right?

What is the importance of these different factors? And in my world, they're very important, right? If you don't address adrenal or you don't address mold or you don't address pots, I don't care how many antibiotics you throw at these people, they're just not going to get better.

So it's going to be a very comprehensive trial. I expect it'll probably cost around, you know, I'm guessing maybe $6 million for 150 people somewhere around at least, $30,000, you know, per person.

I mean, probably up to 40. We're going to have to work this out, but I'll be sending the the initial study to Ben Beard from the CDC. We're going to get on a call with Holliday Goodrow from the Live Lyme Foundation, and hopefully Olivia will be on the call.

We're going to discuss it. I'm going to send it to John Alcott from John Hopkins. I will send it to Brian Fallon from Columbia. I will send it to all of the researchers who are brilliant researchers who have done and say, hey guys, rip this thing apart.

Tell me what you like. Tell me what you don't like. you know, apart from the SF36, you know, to measure, you

know, fatigue. Tell me what you like and don't like.

So I will make sure that this has gone over with a fine tooth comb by everyone, including, by the way, people from the IDSA, anyone who's interested in looking at it, I want to make sure that everybody has a chance to look at this before it takes place, because we've only got one shot, right?

We have not had a randomized trial in 15, 16 years since Brian Fallon did it in 2008. and that was not with persister drugs that was not with biofilm agents.

That was now looking at MSIDS variables. Right. A lot has changed in the last 15 years. So when the NIH says, you know, we're not really sure it's a persister organism because we did a randomized controlled trial, we didn't know at the time that lyme was a persister organism under biofilms, and that these absence variables were making people ill.

So I, I think we're going to get a lot of information. And I think it really will be the answer that many people are looking for. I hope so, it's so exciting and so exciting and it's so, so needed.

So you think that's going to be released in 2025, or will it be in 2024 when you're by the time you're done? So I'm hoping that I will have the final study design and the fundraising done by sometime this summer, maybe even late summer.

And maybe we can start because there'll be a three month washout before people do the adaption. So I'm hoping actually to start it by the end of this year.

But you know, I'm a pie in the sky guy who hopes for the best. And we'll see what happens. But I think the Lyme community will support this because they know I've been working at this for a long time.

I've been publishing actively, I share all the protocols, you know, online. So anyone has up the ability to, to use them. So I'm thinking it'll probably happen by the end of the year.

That's wonderful. So again, share with anyone who's listening, how they can participate if they're a medical practitioner and want to participate in the study.

And then also for patients or caregivers that need help with treating Lyme and tick borne disease, let them know how they can find you as well. So, you know, we already have a couple of doctors and it's interesting and I'm not sure it'll play out this way, but, we have a doctor, an infectious disease doctor, Dr.

Jack Lambert in Ireland who has been using the Dapsone protocol. I spoke to him at the ILADS Conference in Boston. He may have an interest in, being part of this.

This way. We have a European cohort, which will be fascinating. I have a doctor in Canada. who's also been using the Dapsone protocol, who wants to work out of the Jewish hospital out of Montreal, and it looks like she's got the support to do it.

So it may even be, you know, a multi international. I'm not sure. But both of those doctors have expressed interest, as has Sean McCoy from Maine. So I mean, we've got doctors.

I'm probably going to need at least 5 or 6 centers where the doctors will do it. If it's 150 patients, you know, maybe it'll be seven where everybody has to have at least, you know, 20 patients, 25 patients in seven different centers.

We'll have to figure out how this works. but again, the email to contact us if you're interested, as a physician to participate or patients, would be research@hvhac.com It stands for Hudson Valley Healing Arts Center.

and again, I won't have more information until the summer, but hopefully, I'll be posting updates on Facebook for people. Wonderful. Thank you so much for this interview and thank you everyone for listening.

I hope that you have found this insightful, and I really hope that it helps you on your journey. Healing from Lyme. We'll see you next time.