Introduction: Ten Surprising Truths About Lyme

Hi. Dr. Hinchey here. I want to share with you what I consider to be the ten most surprising truths about Lyme and other vector borne diseases. Okay, so just going to summarize all ten right here.

So number one is that Lyme is a clinical diagnosis. Number two Lyme and other vector borne diseases can cause an abrupt onset of neuropsychiatric symptoms.

Number three there may be a connection between the Lyme causing organism Borrelia and cancer. Number four EM rashes are not frequent and they vary in both timing and appearance.

Number five there's a high incidence of vector borne diseases in pediatric acute onset neuropsychiatric syndrome, or PANS Number six pattern recognition is key to the diagnosis of Lyme and other vector borne diseases.

Number seven there's a major overlap of and cast symptoms with vector borne disease symptoms.

Lyme as a Clinical Diagnosis

Number eight mycotoxins illness has a synergistic effect with vector borne diseases. Number nine reactivation of vector borne diseases from the Covid spike protein happens.

Number ten mindset matters. So make sure that no matter what, you do not give up hope. Okay, so we're going to dive a little deeper into each one of these.

So Lyme is a clinical diagnosis. Why am I saying this and what does this mean. Most people are taught or here that there is a simple test for Lyme disease.

And if you're positive you are positive for Lyme. And if it's negative, you're negative for Lyme. This could not be farther from the truth okay. This is why there are so many misdiagnosis.

This when it comes to Lyme and co-infections. This diagnosis should be based off of doing a thorough health history. Your exposure to the various vectors that carry these pathogens, findings from your physical exam.

So that's from your doctor looking at you, doing various neurological tests, doing a physical exam, as well as the nature, duration and progression of your symptoms.

These things are crucial to making the diagnosis of Lyme or a co-infection. Now, testing can be helpful in making a clinical diagnosis, but it should not be the determining factor.

And I'm not just talking about tests for Lyme disease. There are many simple tests that can be done that look at your immune system's functioning and the amount of inflammation in your body.

And we can take clues from these tests as to whether or not an infection, even a long term or a chronic infection, is present. Also, we have to even if you go to a special t lab to be tested for Lyme and co-infections, we need to understand how to read those tests as well.

We simply cannot look to a past ative or a negative. If you are making antibodies to any level to some of these specific proteins or organisms, we have to take that seriously.

These are infections that suppress our immune system's ability to function normally. And if we are suppressing the immune system's ability to make antibodies, and we're using a test that detects antibodies, we're going to end up

with a lot of false negatives.

So any amount of antibody production, and even if it's not enough to earn a positive on that test, is important and should be taken into consideration for the clinical evaluation and diagnosis of these infections.

Okay. Number two, tick borne diseases can cause an abrupt onset of neuropsychiatric symptoms. Now the key word here is abrupt. So usually if you are developing let's say schizophrenia or dementia or anxiety or depression, it doesn't just come on overnight.

You are not normal on Tuesday and significantly impaired on Wednesday and Thursday. Okay. So this abrupt onset often is infection driven. So whether it is strep involved in a pandas diagnosis or it's Lyme or Covid or some other bacteria or virus, driving pans or it's just a sleep disorder.

And I don't mean to say just I understand how terrible sleep disorders are. but if it's, you know. Hallucinations or OCD or panic attacks or even just severe cognitive impairment or brain fog, these things usually don't just come on overnight without warning.

another one that I think is so greatly overlooked is Suicidal Tendencies. There's a lot of suicidal tendencies in Lyme and co-infection patients, and we really need to start, really acknowledging that and looking further into it.

Abrupt Neuropsychiatric Symptoms

So if you or a loved one has any sort of brain dysfunction, whether it is cognitive or emotional or seizure like, make sure that you are ruling out infections as the underlying cause.

And here are some various studies on the link between, neuropsychiatric symptoms and various infections, whether it be Lyme or other co-infections. So number three, there may be a connection between the Lyme disease causing bacteria, Borrelia, and cancer.

So this first slide looks at the work of Dr. Eva Sapi from New Haven, Connecticut. So this was at the University of New Haven, and she was researching the possibility of there being a link between breast cancer and Lyme disease.

And so specifically, she was looking at Lyme as an epigenetic factor in the development of breast cancer. So when examining more than 400 invasive breast cancer tissues, they found that a significant number of samples were positive for Borrelia, suggesting that the bacteria may play a role in breast cancer development and metastasis, which is the spread of the cancer.

They then went on to say that normal breast tissues were completely negative for the bacteria. And then they found evidence that the bacteria was present in the breast cancer tissues.

Then furthermore, when they introduced Borrelia bacteria to cancer cells, they found that it invaded much more quickly. Then there are some other studies, linking Borrelia and various lymphomas.

So we have one, where the high assist was that infectious agents may, initiate chronic inflammation and facilitate B lymphocyte transformation and lymph node genesis.

And that had been raised over the past few years. And they were associating, Borrelia burgdorferi with cutaneous molt lymphoma. So this is looking at the interactions between the pathogen the host and the tumor environment.

So this slide looks, the correlation between Borrelia and various lymphomas. So there was a review in the Open Journal of Medical Microbiology which found Borrelia in the skin of primary cutaneous, B-cell lymphoma patients.

And the theory was that Lyme disease induces systemic inflammation, suppresses the immune system, and creates conditions for DNA mutations and cancer development.

Possible Links Between Borrelia and Cancer

the American Cancer Society noted a few reported cases linking Lyme disease and cancer. Okay. Number four erythema, migraines, rashes vary in timing and appearance, and their, their incidence or their incur occurrence is actually less than 40% of most cases.

And I want to make it very, very clear here. An EM rash would only be present with Borrelia burgdorferi, not with the other species of Borrelia, and certainly not with any of the other co-infections.

So we cannot rely on the presence of an EM rash to diagnose Lyme disease. The EM rashes can take anywhere from 3 to 30 days after the tick bite. And if we are waiting three weeks that infection is already going to disseminate and it's already going to cause basically the ignition of the cytokine cascade, and it's going to start to weaken the immune system and cause immune dysregulation.

And so we really want to intervene and treat Lyme within hopefully the first 3 to 4 days of the tick bite. And if we are waiting for the appearance of this rash, which is only going to occur in 40% or less of patients, we are completely missing the boat here.

Okay. Also, these rashes look very different in appearances. So all of these rashes are EM rashes. And we can see they look very different. None of them look actually like the classical bullseye rash.

So this is very important to take into consideration. And again this is only seen with Borrelia burgdorferi not the other 18 species of Lyme that we can test for and certainly not with Babesia or Bartonella or anaplasia or erlichia or Mycoplasma, all which need to be tested for on their own.

Now I want to point out if there is an EM rash, the EM rash is diagnostic of Lyme disease. It doesn't matter what your test says. However, the presence of an E rash is diagnostic of Lyme disease.

No matter what any test says. Okay. Number five, there is a high incidence of Lyme and other vector borne diseases in Pans. So this is pediatric acute onset neuropsychiatric syndrome.

And it's also referred to as basal ganglia encephalitis. And I do want to point out even though this is called pediatric acute onset neuropsychiatric syndrome, I see a lot of this in adults, young adults.

This does not have to be in your, typical pediatric patient. Bartonella, especially is known to be a factor in basal ganglia in Suffolk. Ladies. but also Lyme, the bco, and a plasma or licky mycoplasma.

EM Rashes: Timing, Appearance, and Limits

Also viruses, other infectious organisms as well can trigger patterns. I have to say, in my experience, I have yet to have somebody diagnosed with Pans who didn't have an underlying tick borne infection.

So I think the correlation is much greater than we actually know. And I think that we really need to look at that acute, abrupt onset of neuropsychiatric syndromes in any great age group.

And we need to look at that as a telltale red flag of an underlying infection until it's been ruled out. And here are just some studies showing the incidence of tick borne diseases in pans.

Okay. Number six pattern recognition is key to diagnosing any vector borne disease. And it's really important to note these hallmark symptoms. So especially with Lyme disease the symptoms are chronic meaning they're ongoing.

They can be ongoing for months or years or even decades. But they're often intermittent. So they come and they go. They typically will affect multiple organs systems at once.

So I always say Lyme infects every single cell of the body. Therefore it has the ability to effect every single cell on the body and therefore every organ, every organ system and every system in the body.

And really, I think that these infections prey on our individual weaknesses. So whether it is a previous injury or it is a genetic, snip, you know, Lyme will play on our weaknesses and on our, already existing inflammation in the body.

So key diagnostic features of symptoms are that they affect multiple systems at once. And they migrate around the body, and they might migrate from simple, system to system.

And they're cyclic. So it might happen every week which is more likely would be easier or every three weeks, which is more likely with Lyme disease. or it could happen at certain points in the day, which is more, a hallmark symptom of Bartonella.

And another hallmark feature of all of these is that there's immune system impairment that worsens over time. So the more time that goes by, the weaker the immune system becomes, the more you might feel like you're catching every cold or every flu, or your wounds are healing, appropriately.

I will tell you a huge red flag for me is when a patient has had an injury, or they've had a surgery and they are not recovering. The body is not repairing itself in this speed in which you would expect it to, to repair.

So I want to quickly go through, some hallmark symptoms. So with Bartonella, a lot of times there are more central nervous system symptoms. Then there are musculoskeletal symptoms.

So it's a lot more, brain symptoms, a lot more psychiatric, cognitive symptoms. So we can have with central nervous system irritability, muscle twitching, tremors, insomnia, seizures, severe agitation and irritability.

We can have neuropsychiatric symptoms like anxiety, mood swings, outbursts, rage, antisocial behavior. We can have really strange icepick like headaches.

We can have racing heart light sensitivities. A lot of times you'll see symptoms that just are on one side of the body versus the other. you can have this weird buzzing or electrical, feeling or sensation throughout the body.

Also like a weird buzzing in the brain or in the head or in the ears.

Lyme and PANS in Children and Adults

we can have migrating nerve pain. A classical Bartonella symptom is, pain in the foot or the heel or the soles of the feet. We often see enlarged lymph nodes.

there can be a lot of eye symptoms. So blurry vision that comes and goes, I pain, feeling like your eyes are swollen or going to pop out of your head.

Conjunctivitis. uveitis, all of these different eye symptoms. And then there's a lot of connective tissue symptoms, like having these weird tender nodules, on your extremities, having a lot of tendonitis, a lot of bone pain, painful joints, but not having synovial swelling.

And there is a very distinctive manifestation in the skin, called striae or stretch marks or Bartonella tracks. And so these are different than typical stretch marks because they blanch when you press on them and they do not follow normal, dermal planes in the body.

And then there's also a lot of GI issues with Bartonella, which a lot of people don't recognize. So gastritis or inflammation of the stomach, which can feel like acid reflux.

having lymph indicts of the of the abdominal area and having, you know, liver pain that comes and goes, nausea, all sorts of other strange GI issues as well.

Okay. So moving on to Bbca. I would say one of the most telling signs of the BS is having night sweats and day sweats, and these can often be drenching.

Another classic symptom is shortness of breath or air hunger. being easily winded, just doing something like talking or climbing a flight of stairs, having a chronic cough.

Pattern Recognition and Hallmark Symptoms

Having these dull, all over head pressure, sort of headaches, headaches that are in the occiput or the back of the neck where your head meets your neck.

having flushing, having, head pain. Tooth pain. Sinus pain. Bell's palsy. Tonight is. Which is ringing in your ears. again. Night sweats, rib pain. Bone pain.

Chest pain. Having anxiety, brain fog. Depression, insomnia, and Bézier can also cause a lot of GI symptoms. it's not listed here, but visia can also lead to anemia.

But, in fact, the red blood cells, it's one of its favorite places. So it can actually lead to an impairment of, the ability to incorporate iron into the red blood cell and can also decrease the amount of red blood cells in the body.

Okay. And then Lyme disease. So we can have headaches that range from mild to severe and have all different qualities. We can have the classic Lyme brain fog, difficulty concentrating, memory issues, confusion, mood changes, sleep disturbance.

You may or may not have the rash, flu like symptoms, joint pain, swelling. Various neurological symptoms. Sleep disturbance. cardiac or heart problems.

Eye inflammation. Blurry vision. Fatigue. Muscle weakness. Swelling of the lymph nodes. Pain in the muscle, pain in the joints, and then also change in bowel function.

Pelvic pain. Chest pain. Twitching. Hormone imbalances. Irritable bladder sweats. Chills. Shortness of breath. Dizziness, hair loss, thyroid issues, chronic sore throats, sensitivity to pretty much everything in the environment.

So you can see here how there are some hallmarks symptoms to each of these infections. But there also is a ton of overlap in these infections, which is why it's important to work with someone who knows what they're doing and, you know, has the ability to diagnose what infections you actually have.

Because especially if you're using pharmaceutical antibiotics to treat the same antibiotics that treat Borrelia, which is what causes Lyme, are often not going to be the same that treat Bartonella and definitely are not going to be the same, that treat BRCA because the PCR is a parasite.

And so you have to use antiparasitic, not antibiotics. So again, very important to know what infection you are dealing with so that you make sure you are on the appropriate treatment.

Now when we use various botanicals there are overlap. So for example I love crypto lapis because it is anti-parasitic but it is also antibacterial and anti-spyware.

Ketel so it's going to have an antimicrobial effect whether we are dealing with Lyme, Bartonella and or Bbca. And obviously crypto lupus is not a standalone treatment.

I am just using that for an example. Okay. Number seven, there is a great overlap between the symptoms of mast cell activation syndrome or MERS, and all of these symptoms that we just talked about, in these various other vector borne diseases.

And so I think that part of this is because the tick borne diseases cause a dysregulation of the mast cell. And when

we have this immune dysregulation going on, and we start to react to the other chemicals in our environment or foods in our environment, and we start to become toxic, and we have this overproduction, of antibodies, and we start fighting everything.

It actually degrades or breaks down. These mast cells. And the mast cells spill histamine as well as other inflammatory cytokines into the body. that causes massive inflammation.

And so we can see swelling of the of the lymph nodes, eye pain, hot flashes, dysregulation with blood pressure or Hots syndrome, huge and tick borne disease.

Please if you have Pots or know someone that has a Pots diagnosis, make sure that they get appropriately worked up by a Lyme literate physician to make sure that Pots isn't just one of their symptoms of these infections, because I see it all the time.

But ncache can also cause palpitations, abdominal pain, anxiety, fatigue, joint pain, muscle pain, headaches, GI symptoms, skin issues, neurological issues.

Sound familiar? Right. So all of these symptoms that we just went through in Lyme and the major co-infections are also symptoms of mast cell activation syndrome.

So we need to make sure that one isn't causing the other okay. Mycotoxins illness has a synergistic effect with vector borne diseases. They both are going to suppress the immune system.

They both generate significant inflammation through activating various cytokine pathways. They both impact the neurologic system. They both compromise detoxification by overburdening the body with bio toxins and mycotoxins.

Mast Cell Activation and Symptom Overlap

They both can lead to increased gut permeability, which can lead to food sensitivities and leaking toxins back into the body, which increases oxidative stress and damage to the cells, and mitochondrial dysfunction, and also mast cell activation syndrome, and they both can develop chronic conditions and become persistent.

And so mold is going to suppress the immune system, burden detox pathways, cause inflammation, all making wine symptoms worse, and all making the body more hospitable to these Lyme and tick borne disease infections, which help them to survive in the body.

So very, very important to make sure that mycotoxins illness is not also present as one of these comorbidities. Or you could even call it a co-infection with Lyme disease.

I would yeah, I'll leave it at that. Okay. Number nine reactivation of vector borne diseases, especially Lyme disease and Bartonella happen from the presence of the Covid spike protein.

So my sort of hypothesis with this is that the resulting inflammation immune suppression and immune dysregulation that results from the Covid 19 spike protein, whether you got it from a vaccine or from just having Covid, creates a hospitable environment for these dormant, vector borne diseases to reemerge.

So we have inflammation specifically in the capillaries, we have micro clots. We have increased, thickness or blood coagulation. We have decrease perfusion to cells and various organs and extremities.

And then really what's at the crux of this is we have the ACE-2 binding. So when the spike protein binds to the ACE-2 receptor it decreases organ functioning.

So we have elevated galectin 3 levels. We have an imbalance to one and two branches of the immune system.

Mycotoxins and Vector-Borne Disease Synergy

And we have an elevation in all of the inflammatory cytokines like interleukin six, interleukin one beta, TGF beta, tumor necrosis factor alpha. And so this really sets the stage for these tick borne diseases to reemerge because the immune system is no longer holding them in remission.

And so this immune dysregulation, this inflammatory cytokines and cascade actually creates the perfect environment for these tick borne diseases to reemerge, start replicating and start thriving inside of our bodies again.

So you need to correct the immune system dysfunction and deal with the cytokine cascade in order to, you know, to get both of these things now back into remission.

And I'm getting a lot of chronic or long haul Covid cases where we are finding either reactivation of various vector borne diseases, or patients are finding out for the first time that they actually have a vector borne disease, that, for whatever reason, wasn't causing them significant issue prior to, to having the interaction with the Covid spike protein.

Okay.

COVID Spike Protein and Reactivation

And so finally, mindset matters. And I think that this is so important. So we cannot just focus on all the physical things we have to focus on mindset.

And this isn't just going around trying to be positive okay. This is understanding that in most cases your brain is on fire and that you have an infection and that you can and will get better.

And a lot of times when we start to feel these very scary physical or mental symptoms, it spirals us. And I have a lot of patients who it full on spirals them into a panic attack where they have gone to the emergency room because they think they're having a heart attack or a stroke.

And so I think just recognizing that these are symptoms and being able to have some tools, whether it be, you know, tools to help to stimulate the vagus nerve or whether it is, breathing techniques or, you know, various things that you can do, to kind of calm the nervous system, soothe the nervous system, but also to kind of get yourself out of that fight or flight mode and almost talk yourself down.

You know, if you recognize my heart palpitations or my racing heart is a symptom of my Lyme, I know that I am working on it, I am treating it. I am working with a good Lyme literate doctor, and I am in good hands.

And you know, you can go lay down and do some some visualization, some breathing, some vagal nerve toning techniques and you can kind of just calm it a little bit or stop it from going into a full blown panic attack.

Mindset, Hope, and Healing

That is very, very empowering. So again, I think just realizing this is a symptom, it's going to pass. I am okay can go a really, really long way. The second point is that if you don't think you're going to get better, you're not going to get better.

And I'm not suggesting that you lie to yourself and tell yourself, oh my gosh, you're you're perfect and you're healed and everything's great. That's not what I'm saying.

But I think that maybe every night before you go to bed and every morning when you wake up just taking a few minutes and saying, I am healing, my body is healing.

I am doing all the things that I need to do to heal myself. Those are usually true statements, right? So trying to look for any positive, any gratitude and anything that you can do to soothe your nervous system and just know that there are so many people out there that can help you and that will help you and that you are not alone.

So please have hope and know that you can heal one. Thanks for joining me and I will see you shortly for another episode of the Healing Lyme Summit. Take care.