Lyme Healing Goals and Enzyme Inhibition

Hi, Doctor Hinchey here. I want to talk to you guys about my favorite herbal interventions for healing Lyme disease. So first, I want to talk to you a little bit about the goals of healing Lyme disease so that you understand why.

To use the herbs, I'm going to recommend. So there's three main things that happen that help Lyme to live in the body. So number one, it activates these enzymes that break down collagen and the extracellular matrix.

And this allows it to move throughout the body and also break down your connective tissue and your collagen and feed itself. And so this is going to lead to a lot of weakness and instability and pain and inflammation and whatnot.

And if we can inhibit these enzymes, we can actually slow down the ability of this organism to move throughout the body and to break down our collagen and feed itself.

So there's three enzymes to keep in mind. Kinase how you're gonna do this and the collagen pieces. And so we can inhibit aggression using Japanese knotweed.

We can inhibit how you run a disease using echinacea and ashwagandha. And we can inhibit the collagen ases using Japanese knotweed and Chinese skullcap.

So you'll see here a combination of Japanese knotweed, ashwagandha, and Chinese skullcap are actually going to inhibit all three of these enzymes that break down our collagen and extracellular matrix for the infection and help it to move.

The second thing is that we have these organisms, and specifically it's like the flagella on the spider key, which is the bacteria that causes Lyme disease, also known as Borrelia.

And it ignites, nuclear factor Kappa beta. This first inflammatory cytokine listed here and kicks off this whole cascade of all of these other inflammatory enzymes that you see.

And these inflammatory enzymes, not only cause the inflammation that cause cell damage and cause your symptoms, but also it leads to the immune dysregulation and sometimes autoimmune like response that we see in the body.

And so we can actually inhibit these cytokines using a combination of Japanese knotweed and Chinese skullcap as well as cordyceps. So this ongoing inflammatory cytokines cascade is really what leads to an imbalanced imbalance in the immune system.

Inflammation, Immune Dysregulation, and Key Herbs

So I want to reiterate the importance of these three herbs Japanese knotweed, Chinese skullcap, and ashwagandha. Together, these three new herbs used simultaneously will inhibit the enzymes that degrade collagen and the extracellular matrix and also protect the endothelial cells, which are the cells that lime initially invades.

A combination of the three herbs also will inhibit the inflammatory cytokine cascade and balance the immune system. Okay, so galectin three is an upstream driver of inflammation.

And galectin three does a whole bunch of things. It forms the backbone or the scaffolding for the biofilms or the forts that these bacteria build to evade the immune system.

It promotes adhesion of pathogenic microbes to various cells and epithelial tissue in the gut in our body. It shields

these pathogens from immune surveillance and drug therapies or antibiotics.

It drives the cycle of dysbiosis to systemic inflammation. So again igniting nuclear factor, kappa, beta and all of those other resulting inflammatory cytokines.

It ultimately causes immune suppression and dysregulation. And it also promotes the development of mast cell activation syndrome and drives the instability in the mast cell.

So galectin three can be blocked or inhibited using galectin three modulator, also known as G3M active sol. So this G three impact de sol is a polysaccharide soluble fiber that's derived from the pith of citrus peels.

So from fruit. And it goes through this process where it's modified to a low lower molecular weight and to enhance the GI absorption of it. So regular citrus pectin, you're just going to keep in your digestive tract and you're going to poop it out.

It's a fiber that you are not able to absorb. What's different about this is that it goes through this aster for creation and, modification to lower its molecular weight.

So it's actually able to be absorbed into the body and work systemically. And so this G three unpacked de sol actually is has a stronger affinity for the binding site on the carbohydrate recognition domain of galectin three.

And it actually kicks the LPs. And it busts up these tumors which are the scaffolding for the biofilm.

Galectin-3, Biofilms, and G3M Modulator

So this is very, very strongly able to break down biofilms in the body. G3 impact to Sol also binds heavy metals, binds the LPs, which is the breakdown of the outer cell membrane of the dying bacteria.

It increases interleukin one beta. Sorry let me say that again decreases interleukin one beta and interleukin six. Two of the predominant inflammatory cytokines decreases nuclear factor kappa beta.

It helps to increase natural killer cells and it promotes healthy collagen production, which is so important when we are fighting an infection that breaks down our collagen and lives off of the nutrients contained in it.

So there are multiple studies here that talk about the effectiveness of various botanical medicines in treating Lyme, as well as other vector borne diseases.

There are also multiple books written by the late Stephen Harold Buechner, master herbalist, who basically dedicated his life to studying herbal medicine and, their ability to heal Lyme and other tick borne diseases.

And then there was a study done more recently in February of 2020, and it evaluated the natural and botanical medicines for activity against growing and non growing forms of Borrelia burgdorferi.

And some of the herbs studied here were crypto lapis, black walnut, sweet wormwood, which is sweet honey, cat's claw, and Japanese knotweed, and they were shown to have potent activity against the Lyme disease bacteria, especially the dormant persistent forms which were not killed by the current Lyme antibiotics.

So that's a great study to look up now. May 7th. Most use antimicrobials for treating Borrelia are Japanese knotweed, cat's claw, Chinese skullcap, Sweet Annie, crypto lapis, petunia, and black walnut.

And what I want to show you guys is that not only are these herbs antimicrobial, but they have a lot of other side benefits that feed into our underlying goals of healing from Lyme, which include balancing the immune system, decreasing those enzymes that break down the extracellular matrix and collagen, and inhibit that nasty inflammatory cytokines cascade that makes us hospital to these infections but also causes most of the symptoms.

So we'll start with Japanese knotweed. So in addition to being anti micro able it's anti-inflammatory. So already showed you it inhibits those collagen ases inhibits the MPs decreases C-reactive protein.

And and it also inhibits a lot of the other inflammatory cytokines.

Research on Botanical Medicines for Lyme

And it has various constituents in it. This isn't just resveratrol. So I know that a lot of people talk about the importance of using resveratrol in treating Lyme.

But if you're just using resveratrol and you're only using a resveratrol extract, you're really missing the boat because there are other constituents in Japanese knotweed that are going to work synergistically with the rest of our trial and is going to give you the full array of the effects of Japanese knotweed, not just resveratrol.

So that's a very, very important thing to note. Japanese knotweed is also immunomodulatory and immuno stimulant. It also is neuroprotective and it protects against beta amyloid induced neurotoxicity and ischemic injury.

And this is by a. And so again like you're not going to get the same effect if you're just using that resveratrol extract. You can look at the various contraindications and side effects here.

Biggest thing to note is that you cannot use Japanese knotweed if you are on a blood thinner. Okay. My second favorite herb is cat's claw. So cat's claw is, anti-inflammatory.

It inhibits nuclear factor Kappa Beta, which is up at the top of that inflammatory cytokines cascade. It's also an anti oxidant. And so remember that LPs there that break down component of the outer membrane of the dying bacteria increases oxidative stress and inflammation.

And so this is one of the things that this does is it inhibits this polysaccharide induced nitric oxide synthase. Which is a driver of oxidation and cell death in the body.

It's also anti-spyware Ketel. So it's effective against all morphological forms of Borrelia burgdorferi, which is super important.

Japanese Knotweed and Cat's Claw

So this includes round bodies, biofilm like colonies, etc.. In addition to the growing forms, hi hats cloth is also cardioprotective. And it's an immuno stimulant.

And so for certain people, you know, it's important to have this immuno stimulant property. So it helps to increase natural killer cells, which is one of the subsets of lymphocytes that when you have chronic Lyme disease actually gets shut down.

I don't believe in using to free cats claw. I believe in using the whole herb as a natural path doctor. I am trained to classically in botanical medicine, and again, I believe in the power of the whole herb and the synergism of all of the constituents in the herb.

When we start trying to extract certain things out, that's where we run into trouble and we can have side effects instead of side benefits. The biggest drug herb interaction with cat's Claw would be if someone is on a blood thinner.

Again, just like Japanese knotweed. Okay. Chinese skullcap, one of my favorites. It's antibacterial. It's entire spiral kettle. It is anti-inflammatory.

And it's also neuroprotective. Chinese skullcap also contains high levels of melatonin. So it is very helpful, in patients who aren't sleeping. So I know a lot of you out there with Lyme have insomnia, sleep disruption.

So skull cap is a wonderful way of actually giving the body some melatonin, which is also immune boosting. And it also helps to shut down an enzyme called Iddo.

And Iddo actually breaks down tryptophan into something called folic acid. And Quinn folic acid is extremely neuro inflammatory and causes insomnia and can even cause seizures, so skullcap can inhibit that chemical and help us to convert our trip to fading into serotonin and melatonin.

So it's just a wonderful nerve tonic. On top of being anti-inflammatory, antibacterial and anti-spyware, Cato.

Chinese Skullcap and Sweet Annie

All right, Artemisia annua, or sweet Annie, is an type of BCR anti plasmodium. It's also antibacterial and anti by our cattle. And it is anti-inflammatory and it's an antioxidant.

So this herb has one of the most far reaching effects as far as its side benefits. And if you are on an Asal antifungal as part of your treatment or a calcium channel blocker, you just want to be, you want to be careful.

And it can also, those things can block the effects of your body's ability to absorb, the sweet anti or the artemisinin, which is one of the desired constituents in sweet anti okay.

Crypto lapis. So crypto lapis is antibacterial anti-spyware Ketel it's antimalarial. It's antibody seal and it's anti inflammatory. So it has a lot of really good effects that are synergistic.

Crypto lapis has been said to actually be effective against the persistence cells of Lyme, which, most antibiotics are not. Petunia is antibacterial, it's anti-inflammatory, and it's also antioxidant.

And black walnut is antibacterial, anti spirit Ketel and also has an ability to inhibit most of the pro-inflammatory cytokines okay. So a sample Lyme disease protocol for me and this is a sample okay.

This is meant to be done with all of the lifestyle medicine and the functional medicine and the natural medicine. You know that you've heard throughout this summit, I would use a teaspoon three times a day of the G three impact to salt.

And again, this is to break down biofilms, encourage healthy collagen production, increase natural killer cells, decrease interleukin six and interleukin one beta, bind any heavy metals that are being released.

You know, from those biofilms or from the cells, and to help to heal up the tight junctions. So it does a lot of amazing things. Secondly, ashwagandha, half a teaspoon three times a day.

This is to balance the immune system.

Crypto Lapis, Black Walnut, and Sample Protocol

And also it inhibits some of those enzymes that break down the extracellular matrix. And collagen, Japanese knotweed, a fourth of a teaspoon three times a day.

Japanese knotweed is going to help to inhibit, some of those inflammatory cytokines it protects and ethereal cells. And as you just saw, it has direct anti-microbial antibacterial effects.

Cats claw, immuno stimulant, anti-spyware, Kito. It is going to increase natural killer cells. The dose is a fourth of a teaspoon three times a day. Crypto lapis.

Now you can go from a fourth to a half of a teaspoon, depending. But you want to get up to three times a day. And that's because crypto lapis is anti parasitic.

Anti plasmodium antibacterial anti Spiro Ketel as well as having some anti-inflammatory benefits and Chinese skullcap a fourth to a half of a teaspoon three times a day Chinese skullcap for its neuroprotective effects.

Also for inhibiting the inflammatory cytokines cascade and inhibiting some of those other enzymes. That ashwagandha and Japanese knotweed do not inhibit that break down the extracellular matrix.

And then we have Artemisia annua or sweet anti and again, that is because of its anti-parasitic and anti-bacterial activities as well as its, protective properties and anti-inflammatory properties.

And then, if necessary, you can throw in black walnut a fourth of a teaspoon three times a day for its anti-microbial activities. And then obviously we could consider others depending on the individual symptoms.

And again, this is something that I am recommending you do in conjunction to a good lifestyle. Functional medicine protocol. You know, doing herbs all by themselves.

If you're not supporting the roots of of detoxification in the body and you're not on the basic nutrients and things that you need, you're not going to get, as good of a result as you would if you are looking at the whole patient as a whole and addressing all of the systems in the body and the imbalances in the body, check out my, ten B protocol.

There is a, a little mini talk that I did on that that goes more into like the whole well-rounded, holistic lifestyle approach. So thank you so much for listening, and I hope that you found this helpful, and I hope that it helps you on your path to healing.

Lyme. Take care. I'll see you next time.