Introduction to Stealth Infections and Cancer

And maybe I'm just kind of a little out of the loop, but I don't think so. Like, how are people not studying more in depth the link between these stealth infections and cancer?

I mean, really, you know, the big thing that's out there, right, is HPV, right, and like cervical cancer. I mean, other than that, where in conventional medicine is anyone looking at like this microorganism-driven cancer connection.

This is Doctor Talks, real talk from real doctors on the issues that matter to you most. Welcome back to Lime Bytes, Rebuilding Immunity, Reversing Inflammation, and Redefining Recovery.

In this episode, we're exploring one of the most urgent and overlooked intersections in medicine today, the hidden link between chronic infections, immune dysfunction, and cancer.

We now understand that unresolved stealth infections like Borrelia, Bartonella, Babesia, and viruses don't just cause inflammation. They can reshape the biological terrain, create immune imbalance, and lay the groundwork for tumor development and progression.

Chronic infections contribute to cancer through multiple mechanisms. They suppress natural killer cell activity, impairing the body's ability to surveil and eliminate abnormal cells.

They drive the release of pro-inflammatory cytokines, which promote tumor genesis. They upregulate VEGF and other pro-angiogenic factors fueling the blood supply tumors need to grow.

They trigger immune evasion mechanisms, including T regulatory activation and dendritic cell suppression. These infections combined with toxic exposures and mitochondrial dysfunction create a pro-cancer microenvironment, one that conventional oncology often fails to address.

Our guest expert today is someone who has dedicated his life to treating that terrain. Dr. Michael Karlfeldt is a board-certified naturopathic physician and one of the leading authorities on integrative oncology and chronic infections.

He's the founder of the Carl Felt Center in Boise, Idaho, the author of A Better Way to Treat Cancer, and the host of the Integrative Cancer Solutions and Integrative Lyme Solutions podcasts.

In this conversation, we'll explore the critical link between stealth pathogens and cancer, and how integrative therapies like phytodynamic therapy, oxidative IV support, and mitochondrial restoration can radically transform patient outcomes.

This is Lime Bites. Let true healing begin. Welcome, Dr. Karlfeldt. Thank you so much for joining us today. Well, thank you. I love that intro. I don't feel like we need to add anything.

That was like the complete right there. Well, now we get to deep dive into every little bit of it. Well, this is going to be fun and this is such an important subject.

Because we have these CAMs, we have the chronic infection CAM and then we have the cancer CAM. But the reality is that it is the same CAM because we have these chronic infections like you're mentioning.

it really creates an environment that impacts that tumor microenvironment and shifts that to a more aggressive behavior of the cancer.

Terrain, Tumor Microenvironment, and Immune Confusion

And so it becomes so important then to be able to address these underlying factors, not just look at what should we do to kill the cancer or destroy cancer cells, but really shift the terrain to make it in a more optimization of health that then calms down cancer stem cells and calms down the different drivers like you're talking about.

It's a perfect marriage to address both at the same time. It really is. I mean, if you look at the pathophysiology of these stealth vector borne infections and what they do to the terrain, you know, it's like they literally make the body hospitable to the development of tumors and cancer.

And I love how you said we can't just focus on killing cancer cells because that is my passion when it comes to these vector-borne diseases. I feel like so many medical professionals are just focused on trying to obliterate these infections, and that's why they just won't go away.

So just like you say, to completely get rid of cancer and heal the body, you have to focus on the terrain. 100% the same for me and vector borne illnesses.

We have to correct the damage and what's going on in the terrain and the immune system to turn everything around. Yeah, I did a presentation at a conference about a month ago and I really kind of did the Arnold Schwarzenegger thing, you know, it's not a tumor.

So just the kind of highlighting that it has nothing to do with a tumor. You know, tumor is like the symptom of what's going on in the system. And we need to not just hyper-focus on the tumor and not also as we go through the different imaging or labs or whatever we're doing to become so, you know, it's a bigger, it's a smaller, you know, what's going on.

Instead, shift our focus on, like you're saying, the terrain, you know, the terrain that the tumor exists within. because that is what shapes the behavior of whatever's inside of that.

And the tumor, essentially, it's just a collection of a bunch of junk. It's like a garbage dump. And that's why you have some people say, well, is cancer parasites?

Is it a fungus? Is it a virus? What is it? And it's all of that. It is all of that. And it's because it is the body's attempt to try to minimize toxins and pathogens and things that float around all over the body.

And now it tries to collect it into one location and wall it off to minimize the effect of the rest of the system. And so essentially that is what cancer is.

And so what do you need to do? Well, you shouldn't then just start to pick away at that to release all the junk that's inside. You need to then shift and clear out what's going on around the rest of the body, make that as strong as possible, so not more junk is trying to accumulate in that collection site called the tumor.

And as it gets stronger and healthier on the outside, then the body can start to kind of release a little bit here, release a little bit there, and kind of break that apart, because it feels strong enough to be able to handle that.

Are you ready to revolutionize your approach to diagnosing and healing complex chronic inflammatory illnesses in both adults and children? The Lime Bites Symposium is your gateway to cutting-edge education, groundbreaking research, and innovative therapeutic solutions.

Join us at the 2025 Lime Bites Symposium, November 14th and 15th at the Fort Lauderdale Marriott Pompano Beach Resort and Spa. Lion Bites is the premier functional medicine conference on complex, chronic, infection-driven inflammatory illnesses.

This year's meeting is jam-packed with leading industry experts discussing long COVID, mycotoxin illness, PANS Pandas, as well as Lyme and other vector-borne diseases.

This conference will arm you with the knowledge, clinical pearls, and practical solutions that you can implement immediately into your practice Monday morning that will literally change your patient's lives and get them on their path to true healing.

So join us at Pompano Beach or virtually from anywhere. Register now at LymeBytes.com. That's L-Y-M-E-B-Y-T-E-S dot com. Right, right, to actually like detoxify what's inside of there.

So let's take a step back. When we're talking about like a Borrelia infection or Bartonella or even Epstein-Barr other viruses, let's talk about how they alter the terrain and what they do like on a pathophysiological basis that makes the body hospitable to the development of a tumor in the first place.

Yeah, so let's go into then the tumor microenvironment. Yeah, so what they find is that the activity or the behavior then of the tumor in itself is directly controlled by the microenvironment that we have.

And we know these different pathogens, they tend to go to areas of weaknesses. So they tend to go to places that they enjoy hanging out. And when they are there, they are eating and pooping.

And they are then secreting chemicals that are creating dysregulation in the immune system. And what happens is that, you know, when we think of cancer, we think, well, we just get a strength in our immune system and we're going to be able to beat this, you know, just make the immune system stronger and stronger.

Not recognizing that essentially at some point, the immune system start to actually then benefit the cancer. You know, so the cancer actually kind of hijacks the immune system to do its own bidding.

How Chronic Infections Suppress Immune Surveillance

So then we have, if we then bring them Lymea, Borrelia, Spirochetes, Babesia, Bartonella, whatever it may be, if they are in that environment and they're creating that immune system confusion, that then the cancer can use for its own benefit and then utilizing macrophages, for instance, which they can actually jump in, cancer cells can kind of jump into the macrophages and then the macrophages can carry those cancer cells into other location to then support metastasis so they can start to set up satellite offices throughout the body.

And it is actually these stealth infections that really supports that immune confusion. So the immune system is not very able to recognize what it's supposed to do and not to do and what is the appropriate signaling you should listen to and not listen to.

So that's why it becomes so important to not just kind of boost immune system, but kind of look at what is it that's creating that dysregulation in the immune system and understand, you know, where, you know, What kind of signaling is taking place in the immune system?

Are you in what's called a TH1 phase or TH2 phase? Are you in that kind of active killing going after or have you gone into more of that chronic inflammation where the immune system is just kind of in some way giving up?

and because it's not in that active kill phase. So all of that plays a huge role as we are then looking at cancer. And that's why it's so important to address the underlying infectious agent.

And then with that, like you're mentioning, it's not just killing pathogens, it's about shifting the terrain that pathogens express themselves with it.

Right. And so when we're looking at the different branches of like the T helper cells, right, and how they're balanced, the type of pathogen, so whether it's a virus or it's an intracellular bacteria or if it's a parasite, right, that sort of thing is going to be part of what helps to dictate which type of T helper cell is made, whether it's Th1 or Th2 or Th17, et cetera.

But additionally, when you're talking about the signaling molecules, I believe you're talking about some of the

inflammatory cytokines, right, that can also drive the development of Th1, Th2, Th17, et cetera, And so when you have a lot of these chronic infections, even though Lyme and the component of it that's an intracellular infection should really be pulling like a TH1 response because of some of the pro-inflammatory cytokines that Lyme exploits and increases inside of the body, a lot of times chronic Lyme will actually go like into a TH2 dominance, right, or TH17.

And so, you know, to your point, that's going to stop the body from being able to respond not only to the infection, but increase the likelihood that a tumor would kind of go unnoticed, undealt with.

And what's interesting is also that these infectious agents, they promote epigenetic changes within your genome that can shift the type of signaling that is being then signaled by the cell.

which can then impact the energy production within the cell, how you detoxify. It can then promote more of a survival mechanism within that cell because it feels like I'm living in this harsh environment.

We have all these stealth infections, we have these chemicals, have the metals. If we continue the way we're continuing, we're not going to survive. So we need to do something different.

So then there are signals that are causing these epigenetic changes. And epigenetic just means what genes are turned on, what genes are turned off. And so it's kind of like an orchestra almost.

the body feels like, well, we need to create these change and boom, boom, boom, all these light switches are turned on and turned off. And now all of a sudden, the signaling from that cell is different.

And so it changes things like BCL2, BAX, and then EGFR, TGF, tumor in the alpha. And so all of these different signals are then shifted towards more of a survival state.

which makes it so that it's hard for the immune system then to be able to go after that cell and kill that cell because it essentially has immortalized itself and it utilizes then the chronic infections like the spirochetes and fungus and all these to help with these shifts that are taking place within the cell to promote the cancer's existence.

Right. So can you further explain how these stealth infections specifically affect natural killer cells, T regulatory cells, and dendritic cells? Yeah.

So with the natural killer cells, I mean, we have, you know, we have the CD4, we have the CD8 and they all have different functions. Yeah. So what happens a lot with these stealth infections is that, you know, what's, what's interesting.

Lime the spire keats the actually go after your immune system yeah they and what's what's you know we see our white blood cells they're floating around there very slow.

And and but you have the spire keats i mean they just drill really fast there's is almost like no way that the new system can. Can go after them because the spark eats are so fast.

And what they can do is that they can actually infect these white blood cells and impact how effective they are. And that will then cause them to not be really effective in recognizing obviously cancer cells or recognize what they need to go after.

and they can then start to then shift into that inflammatory where they're triggering then cytokines and very inflammatory signals to be initiated, crossing then an environment that is very pro-cancer, that's very inflammatory in nature.

And we know that cancer cannot exist without inflammation. Inflammation always proceeds. And so, and it also requires for cancer to be able to grow. It needs to then use the immune system to start to kind of break down that environment to essentially kind of make the tissue weaker.

So the structure is just able so because it requires a cancer is not very effective in producing energy. So it needs a lot of building material. It requires that you start to break down the tissue so it can use the protein and the fats and everything from that tissue.

That inflammatory environment that is then triggered by the different infectious agents that are impacting the immune system essentially attacks and and and infects immune system allows and this environment to to see can i come about that is inflammatory tissue is weak and more building material is is being available for.

the cancer to be able to develop, metastasize, and then also then create that immune confusion that allows them to start to metastasize into other areas.

Why Conventional Cancer Treatment Can Miss the Root Cause

So looking at some of these stealth infections becomes such a big deal, but then with those also then looking at the environment that these stealth infections exist within.

So now we are looking at, you know, the chemicals, the heavy metals, we're looking at, you know, all the electrosmog that we're dealing with and that are also making them more virulent and more active.

And because they are used, I mean, spirochetes have existed for, you know, for a long, long time. Yeah, we've co-evolved with them. And it's just lately that they've really become this aggressive.

And so we know that the environment that we exist now in is an environment that they don't like either. So they themselves feel under attack and start to then secrete more neurochemicals and inflammatory signaling and to really create that effect throughout the whole body.

Yeah, it's really cascading effect and that's why it's so important not just to look at the pathogens or look at the cancer, but look at your internal environment, your external environment, that all of that exists within to kind of calm everything down, calm down that inflammatory, calm down that aggressive behavior of these different pathogens that also done, as I mentioned, same with cancer cells.

Are you suffering from Lyme disease or another complex chronic illness and aren't sure who to trust when it comes to herbal supplements? Hi, I'm Dr. Mariah Hinchey, founder of Lyme Core Botanicals.

As a naturopathic physician specializing in complex chronic infection-driven illnesses like Lyme disease, I needed herbal medicine I could truly trust.

That's why I formulated Lyme Core Botanicals. where our herbal tinctures are handcrafted in small batches right here in Connecticut. We use the whole herb, Never Isolates, to preserve the full spectrum of medicinal compounds.

Every single step from sourcing to extraction is done with precision to ensure maximum purity, potency, and consistency. These are the same herbal formulas I used to heal myself and have used for years to help my patients and family members heal too.

And now I'm making them available to practitioners and patients everywhere. Lyme Core Botanicals, herbal medicine you can trust from a doctor who lives this work.

Learn more at Lyme Core Botanicals. That's L-Y-M-E-C-O-R-E dot com. I think we have a pretty good handle here on the pro-inflammatory cytokines and how they alter the environment, break down tissue, imbalance the immune system, et cetera.

Talk to me more about the role of natural killer cells, T regulatory cells, and dendritic cells from the point of, you know, these are three immune cells that the vector borne diseases are going to suppress and alter their function.

But then they're also part of the human body's natural cancer surveillance system. So can you go into a little bit

more depth regarding those? Yeah, the whole process in the immune system is to recognize an infection or recognize a cancer cell and grab that and then present it to your natural killer cells.

So say, hey, this is what we are faced with and this is what it looks like, this is the information and then the natural killer cells can go out and kill that.

And then also that will then later on create a memory of what it is that we've killed. So you have the dendritic cells presenting and so it's a whole process of intelligence that exists in order for the body to be able to address these infections, to address cancer.

One other thing with the immune system, and it's important for each individual to understand that your best doctor exists within you. So there's no other better doctor, there's no other doctor that has more intelligence than what you have within yourself.

So our job is to optimize that doctor within you. And within that, you know, you have the, I mean, it's such a beautiful, you have these components of your immune system, the dendritic cells.

So they go and kind of check out and see what's out there, you know, what kind of infections, what cancer cells, and then they kind of come and they present that to your natural killer cells through your immune system so that they can then go and say, hey, you know, this is the enemy, let's go and attack it.

And so obviously cancer doesn't want that. You know, sparkies, they don't want that. They want all of that to just calm down. And so there are a number of different processes where they then kind of subdue or suppress that immune system activity.

So it's not as effective in doing that. And the cancer cells, they use different kind of cloaking devices that the immune system really have a hard time to recognize that this is cancer and this is something that we need to address.

And spirochetes, they use different chemicals that they also use to kind of suppress immune system activity. So it becomes really important then that we help to, one with cancer cells, we use a lot of proteolytic enzymes to help to kind of decloak that tumor tissue so that the immune system can see up air is a tumor and then the cell will take some of that percentage of the immune system.

The immune system then gets trained that this is what we don't want and then starts to attack it. And then also there's memory that other parts of the immune system that then cannot have that as a memory.

So if this cell ever shows up again anywhere in the body, we are ready to jump on it immediately.

Photodynamic Therapy and Ozone-Based Support

And so it is a beautiful orchestra that takes place within the immune system. And that's why it's so important to be able to make sure that we optimize that whole process.

And with that, there's certain labs that you can run to kind of see where your immune system is at. You talked about the TH1 versus TH2, TH17. Where's my immune system at?

And then you can use different tools and then to kind of activate certain parts of that immune system. So it can shift back into more of the killing, the recognizing of these different pathogens.

Yeah. So it's like such a multifactorial process in the body, right? So it's like immune dysfunction on so many levels. We have the inflammation imbalancing the immune system, but then we also have suppression of the cells that show the immune system that there's a problem, that a cell might be infected with cancer, right, or an infection.

And then also the cells that would actually go after and kill the infection often are suppressed. So it's like we have a

decreased balance, we have decreased presenting, we have decreased killing.

It's like, you know, the whole system kind of goes haywire. And also you have that component that was called autoimmunity, where you have the pathogens, the spirochetes, and they attack certain tissue and then that tissue becomes weaker and then you have components of that tissue that start to then circulate into other areas of the body where it's not supposed to be.

So then that thing creates the immune system start to then kind of focus on those areas versus focusing on the spirochetes, focusing on the cancer. So it becomes like a decoy in a way where the immune system start to kind of clean all this up and try to control this and then has less ability than to address the underlying factor that caused it to start with.

Very complicated. They are, and it's so surprising to me. Maybe I'm just kind of a little out of the loop, but I don't think so. How are people not studying more in depth?

the link between these stealth infections and cancer. I mean, really, you know, the big thing that's out there, right, is HPV, right, and, like, cervical cancer.

I mean, other than that, where in conventional medicine is anyone looking at, like, this microorganism-driven cancer connection? It's really not much and you're starting to see a little bit more with like cytomegalovirus and glioblastoma, for instance.

You're starting to see quite a bit of research actually in regards to fungal DNA that is within the cancer DNA, seeing that there is some connection between fungus and cancer.

But it's not a lot. And I think that that is really creating a disservice for us in so many different ways. And that's the challenge is that you have these different areas of medicine, they all compartmentalize.

We focus on this area, we focus on that area. I mean, we all know it. And when we go to medical doctor, endocrinologist, and then you have you know, neurologists and then you have gastroenterologists and they all kind of do their thing.

And, you know, and if you need them all to kind of coordinate their activity, it's like an impossibility, you know, because the one doesn't know what the other one is doing and they're just kind of hoping that, you know, somehow rework together.

But that is the challenge is that everything is so compartmentalized and we need to bring that together because I feel that that is where the solution is.

Absolutely. And so in addition to these stealth infections taking away the body's own surveillance and killing mechanisms, these infections can actually mess with therapeutic success in treating a lot of these cancers.

So talk to us about the mechanism behind that. How do these stealth infections actually lead to therapeutic resistance with some chemotherapies and actually cause chemotherapy failure in some instances?

Well, and that's the thing is that here again with like chemo, radiation or even surgery, all you are, you're just focusing on the tumor in itself and you do not consider sort of say the body that the tumor exists within.

So it becomes like a battlefield and yes, you've maybe killed that building on the battlefield, everything was destroyed there, but then the whole city around it became a battlefield and now you've essentially weakened that whole city, that whole body, so that these pathogens can now just kind of take a hold even more.

And so it becomes a vicious cycle where you are, yes, you are shrinking something temporarily, but you're creating an environment that is pro-inflammatory, that is immunosuppressive, and that really promotes fungal growth, parasiticals, spirochetes, promotes all these things because now the immune system is just not there to keep things

in check.

And these spirochetes, for instance, they go into that cystic form and they are not impacted by the chemo at all. They just kind of hang out. They wait for the bombing to be over.

And then they just kind of shift form and here they are. And the immune system is even more unable then to address it. And now we have more pathogens to create more environments for more cancer to grow.

So it is sad that it is so myopic in the way we are addressing an individual when they deal with cancer. I do believe, so the conversation around cancer because the traditional oncologists, they know that they can shrink tumors all day long, but they cannot really be that effective in getting rid of cancer.

So they have to shift then the conversation towards then just looking at the tumor. And by doing that, then all the conversation is in that direction.

And then the patient feel that that is what success means. So essentially it is, we need to then change the conversation away from just looking at the tumor.

or looking at the pathogen. We need to shift all of that and that's going to take time because people get so freaked out when they see the tumor and they think that that is what's going to kill them and reality has nothing to do with that.

You know, it's so interesting and I love talking to you because I learn so much every single time. But, you know, in my head, and I try to explain this to patients, you know, it's like you can start out with, let's say, you know, trillions and then it's more, but like say trillions of, you know, of the Spirochete Borrelia, right?

And as you take the the antimicrobials, right, or the antibiotics, you shrink it and shrink it and shrink it and shrink it and shrink it and shrink it and shrink it.

But you never shrink it to zero. You never completely eradicate the infection with antibiotics. It's the immune system that has to come in and completely eradicate it.

And I'm sitting here listening to you and I'm like, holy shit, that's the same thing with the cancer cell. You shrink it and shrink it and shrink it and shrink it and shrink it with chemotherapy.

But you never get it like all the way to the core, so to speak. There's always like the one or two little cells hanging out. And if I'm following you, if you don't fix the immune system, just like with Borrelia and the other vector-borne diseases, when you stop, if you haven't changed the terrain and fixed the immune system, it's just going to eventually grow back over time.

Yeah, and it is interesting exactly what you're saying.

Mitochondrial Dysfunction and Metabolic Cancer Drivers

So with Borrelia, you do antibiotic and then you have the antibiotic resistance, you go into that cystic form and antibiotics really can't get at them in that state.

And so here you're destroying the body with antibiotics and destroying your gut. We know 70 to 80% of the immune system is in your lung, your gut lining.

And then you stop the antibiotics and boom, it just explodes again. So it's the same. It is fascinating. It's exactly the same in cancer. You go after with the chemo radiation and you go after it, but then you have the dormant cancer cells, the cancer stem cells.

and they are not impacted by chemo or radiation. They're just going to hang out there and then wait and then and

there's no way there's no treatment out there with chemo radiation.

Surgery is going to get rid of all cancer cells. Just like you mentioned, there's no way to get rid of all spirochetes. So then you have, after treatment, like you mentioned, you have to rely on the immune system.

So if you destroy the immune system through the process, then the ones that have just been hanging out, waiting for the battle to be over, now they can just reign free.

All right, so let's shift gears a little bit. So you're gonna talk to me. I know there at your center, you have so many amazing therapies that you use.

Talk to me about photodynamic therapy and oxidative IV therapies and how they can actually work together to shrink the vector borne disease load as well as get rid of the cancer cells simultaneously.

Yeah, what's fascinating is that photodynamic therapy essentially means that three components that you need, you need oxygen, you need a photosensitizer, and you need a light source, a powerful light source.

So those are the three components that you need. You can also add then sound, and that will become then sonodynamic therapy, where you use an oxygen photosensitizer and then use sound.

Ultrasound is a common one that we use. And so what we do then is that we introduce the photosensitizer and that there are a number of them out there.

A common one that many of you probably heard of is methylene blue. But then also we have things like riboflavin, which is just vitamin B2. We got hypericin, which is St.

John's wort. These are very powerful photosensitizers. If you introduce them intravenously and then you have pathogens kind of moving through there, they attach themselves then to the pathogen and then as we then have an intravenous laser optic cable then intravenously, as these pathogens are then tagged by these photosensitizer pass by, they get oxidized because they get so much energy.

The photosensitizer kind of pulls that energy from that light source and trigger then the oxidation of that pathogen. What happens then is that now that becomes an educational experience for the immune system because you have then kill the pathogen or you kill the cancer cell and it's been broken apart.

And so now the immune system can see these different components and then educate itself as to what it is that's going on and what type of immune system attack they need to create.

So it becomes a really powerful where you do the initial kill and then you train the immune system kind of like in a vaccine effect to continue going after these different pathogens.

And what's interesting, so a person at our center, they would sit then for an hour with an optic cable intravenously and would know the blood passes by in one spot about once every minute.

So in 60 minutes, you essentially treat your whole blood volume 60 times. So that becomes a really powerful treatment. And then you can then combine that.

A lot of people out there that deal with Lyme know how important ozone is in order to be able to to kill and it is great then to add as pathogens pass by you know you have that extra oxygen atom that or ion that kind of attaches itself and they kind of oxidizes under the pathogen.

But it also, there's so much more to that because it actually would then trigger a downstream cytokine effect that stimulates immune system to start to go after both cancer and different pathogens.

And it also then work on your energy production within the cell. So it makes the cells more resistant to these

intracellular pathogens and also for them to turn into become cancers.

So it has all these kind of multi-layered effects just Ozone in itself. And obviously, there's several different kinds out there. You have the UBI, you have the 10 pass, you have the RHP or EBOO.

We've kind of moved more towards like the RHP slash Ibu because we feel that there's just more of an impact on the body where we can ozonate about four liters of your blood volume rather than just kind of a few cc's of 60 cc's of your blood volume.

So that becomes really powerful and you can combine that with other types of therapies like we have Articinate, it's another one that's out there that's really phenomenal in supporting the body's ability to kill off pathogens, but also help to modulate the immune system.

So it is phenomenal calming down inflammation throughout the whole body. Yeah, there's a lot. And then exosomes, peptides, you know, we've also used some things called TrueDose at our center that also helps to kind of shift the immune system so it can be more effective than what it needs to do.

Yeah. So what would, so first of all, would you kind of piggyback the photodynamic therapy along with Ibu, for example? Yeah, they work phenomenally together.

So that way you can kind of hit it from several angles at the same time and so you can kind of layer things. So you can kind of work on obviously things like chelation and to break things open, break open biofilms and You can bring in the ozone then to kind of kill and modulate the immune system and then also the photodynamic, but then also then utilizing some nutritive supportive like NAD, to help to support the mitochondria and glutathione.

So you want to kind of layer these different things. You don't want to just kill, kill, kill. You want to support the mitochondria, you want to control inflammation, and then you want to go after and kind of oxidize different pathogens.

And so over what sort of span of time and how many treatments would one do with photodynamic therapy and or Ibu? Because obviously it's not a one shot, you know, and you're cured.

So, you know, roughly how many treatments are recommended and over what period of time? So what I've seen great success with is actually doing a eBoo once a week for four weeks, and then do it maybe every month for another couple of months.

And then depending on need, then you can space it out maybe to every three, four months.

How Common Infections Are in Cancer Patients

So I've seen great success in kind of hitting it with a lot of ozone from the start. And then if you then combine that then with a photodynamic, Let's say a person, because we have a lot of people flying in then to the center and obviously then we need to compress the therapies because they're just here during a certain period of time.

I like to do photodynamic almost every day, if not every other day. And then just because you can use it, the beauty with the photodynamic is that you have the killing effect but also the different colors actually support mitochondrial activity.

So we know within your mitochondria you have the different complexes like complex 1, 2, 3, 4. And Complex 1, very ultraviolet and blue focused. And then Complex 2, more kind of a green.

Complex 2-3 is more kind of green-yellow. And then go to more of the red, Complex 4. And so you will then, in addition to having that destructive effect on the things that we don't want in the body, it also has a regenerative effect on the areas that are needed.

So it's kind of like when we do, the majority of us know that A high dose of vitamin C is something that's very useful for somebody battling cancer. So the same thing for cancer cells, it becomes very oxidative.

It produces a lot of hydrogen peroxide within the cancer cell. But healthy cells, it is actually very supportive. So it boosts the immune system, strengthens the tissue.

And that's the beauty is that when you bring a lot of these therapies in, It behaves one way in healthy tissue, another way in toxic or in diseased tissue, cancerous tissue or pathogens.

So we can use the same kind of tool and both benefit and destroy at the same time. Yeah, that's great. So, you know, since we're on the topic of mitochondria, explain to the listeners how dysfunction in the mitochondria specifically driven by these stealth infections are going to increase susceptibility to cancer as well as other degenerative diseases.

It used to be that we were focusing just on cancer and it being genetic in itself, that there's dysfunction genetically. Once we identify that dysfunction, we can then correct that and now we solve cancer.

We had that huge genome project where we mapped out all your genes. But what they come to find out is that you can have two individuals, both same kind of breast cancer and the genetic expression in one is completely different than the other.

So it didn't make any sense. There's like no correlation that they could use. So now we start to then look more at what is creating these shifts within the genome.

And we're then looking at the mitochondria, which is your energy production within the cell. And so we're seeing that cancer is then more of a metabolic dysfunction rather than a genetic.

Doesn't mean that there's no genetic impact. It is, but it is a secondary effect. So what we're seeing is that When the mitochondria is under stress, when the cell, when it's an environment that is very hostile, then it starts to then shift the signaling then towards your genome and it starts to send.

And that's where you see that kind of shift in all those little switches and which ones are turned on, turned off, all those epigenetic changes. And that is actually controlled by the mitochondrial function.

And so what it does and it goes back then into because the mitochondria recognize this cell cannot survive in the way we are doing what we're doing right now.

So it then shifts then towards another way to produce energy, which is a fermentation way where we actually ferment sugar rather than burning it with oxygen.

So what we know by doing that is that we're also then bypassing the cell death switch, the flip that says that now this cell is not viable, it's time to die.

So it actually bypasses that, which allows the cancer cell then to become immortalized. If we can then address and support the mitochondrial activity, we are then able to then flip that switch towards apoptosis to kill that cell.

That has become a much more effective strategy in addressing cancer than just looking at it genetically. Yeah, absolutely. Do you have like a prevalence or an incidence rate of like how many of your – and of course, this is hard, right?

Because I'm sure you have a biased population because you specialize in vector-borne disease and cancer. So I get it if you can't in an unbiased fashion answer this question, but I guess I'm just wondering really how many people with cancer have some sort of underlying infectious microbial process going on in their body?

Has anyone looked at that? Well, and I run labs in that area all the time. And in addition to, I do technical

autonomic response testing where we would check as well.

And I would say that, you know, lab-wise, I'm seeing, I mean, I would say at least 80 plus percent in the labs. And that's recognizing that there's no lab out there that's going to catch everything.

Right. It doesn't exist. If we add then the autonomic response testing that I use, which is a way to check your autonomic nervous system and see how it handles stressors and then we can identify what is putting stress on the system.

I would say that it's a hundred percent. I mean, there's no one with cancer that is not dealing with some type of infectious agents and the majority of time it's a combination of them.

And it is in regards to spirochetes, I'm seeing that more and more and more different kind of Lyme or Lyme co-infection, it's becoming more and more common.

Yeah, you know, and also as the years go by, and gosh, I'm rounding literally like year 20 treating vector borne diseases, you know, it's more and more apparent to me that we all kind of live with these organs, like I very rarely see acute presentations.

What I am dealing with in my patient population is chronic and a lot of it is decades or even going back to childhood, even in older patients.

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And I think it's like, it's amazing what the body can handle and deal with and keep in check. when we're healthy, when we have low levels of inflammation, when we have a fully functioning immune system, when we're literally not being poisoned every day by our environment.

And I think that the toxicity of our world and the toxicity of our food and therefore bodies is really what's resulting in this breakdown of the terrain, this breakdown of the immune system which then allows all of these microbes that kind of have always lived in our bodies to just literally run rampant and take over.

Yeah, yeah. And I see that again and again. And it's fascinating to me. I mean, people, they run different labs, like a CBC and CMP, and then they're declared healthy, not recognizing the body's amazing capacity to compensate for stressors.

And before things start to show up in the blood, there's been a lot of compensation taking place. And when it then starts to finally show up, you know, if you live around signs start to kind of shift in a negative way, your blood sugar or inflammatory markers or whatever it may be.

It means that something's been there for a long time and the body just can't keep it under control anymore. And you're absolutely right. We're able to handle certain level of stressors, but as we are just piled, the buckets just aren't going to fill more and more with what we are surrounded by.

They're spraying this guy, they put cell towers all over the place, and we all walk around with cell phones with signals all over the place. We have all the different new chemicals, thousands and thousands of more chemicals than we're ever used to having.

and they're just new, more avenues of stressors on the body and that just kind of puts our body in a place where these pathogens, one, they themselves become more aggressive and two, we are less able to address them.

Right, absolutely. So before we wrap up for today, just for the sake of time, because I could sit here and talk to you all night long, I want to end on a positive note.

And so, by the way, any of our listeners that want to tune in to the Lyme Bites Symposium November 14th and

15th, Dr. Michael Karlfeldt will be doing a full presentation on all of this, the intersection of cancer and Stealth infections, vector borne diseases, something we didn't get to today, but more in depth, like functional medicine, naturopathic medicine approach.

to resolving these infections and resolving cancer. Tune in for that. You can join us virtually from anywhere, or you can come down to sunny Pompano Beach in November when it's freezing cold everywhere, not everywhere else, but a lot of other places in the world, and get more information there.

But I wanna talk about, you have helped thousands and thousands of patients, and you've interviewed so many survivors on your podcasts. What are the common threads that you've seen in people who have successfully overcome both cancer and these chronic infections?

And you're absolutely right when you say both, it is both. Because it's a common thread, so to say. One is your emotional state. That's very important.

If you're in a place of gratitude, that's huge. And also controlling stressors in your life, getting rid of toxic relationship. It's interesting when I see somebody that is dealing with a lot of toxic relationships, then I know for sure they're probably dealing with parasites.

You see that correlation between the emotional state of an individual and also the pathogens that they're dealing with. So the emotional status is huge.

Number two is how you eat. That becomes really, really important. So what kind of nutrition you bring to your system that is what your body can then utilize to optimize immune system function, also to strengthen tissue integrity so that pathogens have a harder time to overrun the system and the same with cancer.

And then also just making sure that you clean your body. You keep your immune system or you keep your system open for eliminating metabolic waste and then also waste toxins that are exposed to continually.

And then they clean up their environment, they clean up their exposure to things. So those are some of the most important things. And then yes, you can then bring in some of the supplemental, which becomes really important, but you got to layer that on top of it.

And then some of the heroic, stronger therapies that we offer at our center. But if you don't have the foundation, you're not going to be able to address neither cancer nor these different pathogens.

So those are the common threads that I see. And then you kind of work on your gut health, you work on supporting your ability to control inflammation.

And that happens when you get rid of inflammatory substances and support your ability to absorb nutrients appropriately. Right. So I love that the first three things that you said all argue are borderline free, right?

So we can all work on our mindset. We can all work on gratitude, we can all work on breathing, visualization, right, all of the things to kind of like balance our autonomic nervous system.

We can all focus on eating healthy. We can all avoid the seed oils and the ultra processed foods and the fake foods and the chemicals and the preservatives and all the crapola, right?

And we can focus on getting real whole healthy nutrients, right? Which is the whole point of eating to begin with. You know, you have to eat anyways. Junk food is just as expensive as organic healthy food, really.

You know, if you start looking at the price tags and then we can all do things to help our bodies to detox and detoxification. Step one, stop exposing yourself.

So get away from the electromagnetic fields. Turn off the toxic news and the toxic social media and the toxic

relationships. And take the toxins out of your self-care products and your household cleaners and all of that.

And just stopping the exposure goes a long way and can allow your body to start to detox. And then of course, getting in the nutrients that we need to detox, and then all of the things that you threw on top of there.

But I just really, really like how the first three fundamental things, and I would throw in number four, sleep, right? Sleep. We can do for free on our own, and they have such magnificent impacts on our health and our bodies and our immune system.

Yeah, I love that. And that's the thing is that these fundamentals, they move the needle so far. I mean, it really, and then you can add on top of that, but doing these fundamentals, which isn't that hard and it doesn't cost that much to do that.

The outcome is so different when you do. It does. Well, thank you so much for joining us. Thank you so much. Absolutely. Everyone at home, thank you for listening to Lime Bites.

If you know someone who's suffering from Lyme or another complex chronic illness, please share this episode so that they can get the help they need to finally heal, because together we all heal stronger.

We'll see you next time. Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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