How Your Sinuses May Be Fueling Inflammation In Your Brain Transcript

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Introduction to the summit and guest

Hello and welcome to a very special interview for the Reversing Alzheimer's Summit. I am your summit co-host, Doctor Christine Burke. And over the last decade, I've helped many patients reverse their cognitive decline.

And in this summit, I am bringing you interviews with thought leaders who can help you understand how you can prevent and reverse cognitive decline and Alzheimer's for yourself and your loved ones.

I cannot wait to introduce you to Doctor Nafisa Piya today. She is a board certified naturopathic doctor and the Director of Naturopathy Medicine at Gordon Medical.

The premier Lyme disease, tick borne illness and environmentally acquired illness clinic on the West Coast. Throughout her career in holistic medicine, she has focused on treating patients with complex chronic illness.

She specializes in tick borne illness, Lyme disease, environmentally acquired diseases, mold, mycotoxins, illness, autoimmunity, long Covid, chronic fatigue also known as Me, CFS, and mast Cell Activation Syndrome or more.

She is busy. All of these conditions can be associated with cognitive decline, and many of them are root causes for the degeneration to Alzheimer's disease.

So I am very excited to share this conversation with Doctor Nafisa with you today. Doctor Nafisa, I am so happy to have this opportunity. Welcome. Thank you for having me here.

Absolutely. So we're going to be exploring the critical link between sinuses and brain health and all that. This is a connection that most people have never considered before.

Right. I think it is something that is really underappreciated. And it's a big deal when it comes to our patients. There's a big link between the sinuses and brain health.

Absolutely. Yeah. So why don't you tell us some about this fascinating connection between chronic sinusitis, which we know means chronic inflammation in the sinuses and then brain function.

How do they connect? Absolutely. So most people go to the doctor for chronic sinusitis with issues like, stuffed sinuses or maybe facial pain, or maybe they even realize that their migraines are connected to it.

But there's a whole host of other symptoms that these patients have. They realize they don't realize that it's connected to their sinus issues. So a lot of them have problems with cognition or, brain fog or sleep or hormonal issues.

And they've got no idea that it's connected. And most doctors are, you know, I'm just giving them an antibiotic to help with their sinuses and that can help.

But there's a lot more that's helping an acute infection. But when it's chronic, there's a lot more that we need to do and to consider.

How chronic sinusitis affects brain health

But to to answer the question about how this connection is, is that, first of all, want to think about how close the sinuses are to the brain in the sense that right there underneath the brain and we have the olfactory nerve, we have the trigeminal nerve that connect between the sinuses and the brain.

So now when we have, pathogens in our sinuses, bugs that don't belong there, they're going to create toxins, neurotoxins, bio toxins. Our immune system is going to release our release inflammatory cytokines.

These these things neurotoxins, bio toxins, inflammatory cytokines can cross the blood brain barrier via the olfactory nerve, the trigeminal nerve and its lymphatics, and also through the rich vascular network in our sinuses.

And hence we can get brain inflammation. Actually, I want to talk about a study that was done in 2021, which really gave a lot of validation to the work I do with my patients around their sinuses, people where this is at the University of Washington, patients who have chronic sinusitis were given brain, MRI, eyes and they were what was looked at was, neuronal activity and cerebral blood flow.

And it was seen that the people who had chronic sinusitis and the worse the chronic sinusitis was, the worse their brain issues were brain issues like executive functioning, cognition, sleep, integration of external stimuli, social issues, behavioral issues.

So this study, they gave me the validation for what I had been seeing in my patients over so many years. Treat the sinuses. And a lot of times these issues will resolve.

That's fascinating. I love that there is a study that validates this because we all know well those of us who are physicians, right? We know how closely related the sinuses are to the to the brain through those nerves that you described.

So what are what are some of the causes of chronic sinusitis that you see in your practice? It's so so there are primary issues which then lead to a pathogenic milieu in the sinuses.

I see a a deep similarity between the sinuses and the gut which we'll get into. So the primary exposures can be allergies, dental issues. A lot of people have cavitation or infections in the jaw, which can then affect the sinuses.

Structural issues like a deviated septum or nasal polyps, mold exposure. This is a big one. So mild for those people who don't know, mycotoxins are the toxins that are created by mold, and small smoke from wildfires or particulate matter or cigaret smoke.

So we've got these primary issues, which can be insults to the milieu of the sinuses. People are probably thinking, what milieu of the sinuses will there actually is one in.

It's very similar to the gut. So then just like in the gut, within the sinuses, we can get dysbiosis. So this, this abnormal balance of bacteria. Right.

Because we have a like who aren't doctors who are going to be listening. Thank you. Absolutely. Yeah. So so a lot of people know about the microbiome in the gut, the beneficial bugs and the pathogenic ones, and how that can create issues in the neural pathways, the hormonal pathways.

Well, the same is so for the sinuses. So we can have pathogenic bugs in the microbiome in the sinus microbiome. And we can have beneficial ones. Now the testing isn't as sophisticated yet as it is for the gut.

But there is testing. There's enough testing for us to know what kind of microbes are in there, so we can get dysbiosis in the sinuses, just like the gut, just like in the gut.

There's an epithelium. So people know about leaky gut, right. Well we can get that in the sinuses as well as well. So the leaky the the epithelium is that the layer of cells that line the the area.

And for those who, who don't know for the listeners and in that epithelium of the sinuses is a rich network of of immune activity. So that can get disrupted from those illness, from those primary insults like particulate matter or smoke or mold.

And then what happens? Just like in the gut, we can get chronic inflammation, really, that we can get chronic inflammation in any part of our body. But speaking of the sinuses in particular, I see people where I can be pretty certain there's significant prolonged inflammation going on in the sinuses.

And then that is, that then can lead to the brain issues. Absolutely. Interestingly, just before this interview this morning I was examining a patient with cognitive decline.

And when I checked in her nose it was very red. It was very inflamed. And she said she had no symptoms. No I don't have any nasal symptoms. I don't have any allergies.

Causes of chronic sinus inflammation

I don't have any congestion problems. And I said well we've got something going on in there. It's fascinating. In your right, so many people say, no, I don't have any sinus symptoms.

And when they tell me about the brain symptoms, the cognition, the hormonal issues. I said them, you know what, if you don't mind, I'd like to test your sinuses anyways because you're talking to me as though you do have a sinus issue and might not be showing up.

In the premiere where that you expect to. And then the interesting thing is, with those sinus, those patients, we test them, we find the different bugs treat them, and the patients will often say, you know, I'm breathing better than I was before.

I didn't even realize that I was breathing poorly or sleeping poorly. Yes, exactly. Both of those. So what are some of the ways that you like to test people, to try to get a better idea of what might be going on in their sinuses.

So I like to look I'd like to use two tests. One is called microbiology and one is microban. So the microbiology docs, will look at mark ons, which is a kind of staph infection which is resistant to a lot of antibiotics.

And it's very common in people who have tick borne disease and mold issues. So I use that one and I'm thinking about that one. I want to look at biofilm.

I'm using that one. The the micro gene, the X one. Does show us other species I know. So it shows species that are common in the skin, which actually I'm not really after some intending to use, the microbiology, the x one more because I don't know about the biofilm.

Then we know about the microbes. Are the mark ons. This is an interesting thing because with that microbes and I've been noticing that I'm seeing a lot more of the Kutta bacterium species, which may be what you're referring to.

And I will have to share this paper with you that I just read that, that actually looked at the microbiome of different parts of the brain in people who had neurodegenerative disease.

So we can see what it looks like in Alzheimer's disease and what it looks like in Parkinson's disease. And those both had significantly more of those Kutta bacterium species than in the normal in the normal brain.

So yeah. Fascinating. Yes. And that to me after and then I saw one that talked about chlamydia, pneumonia. There was some, researchers in Australia, the funk limiting pneumonia in the brains of the sinuses.

I think ten fold over the controls. Wow. And just for our listeners, chlamydia. Pneumonia is a respiratory. Chlamydia. It's not the one that you might be thinking of.

I know patients always get worried when I tell them they have chlamydia, pneumonia either. Like what? No, no, not that kind. Not the down below kind. This is respiratory.

Yeah, yeah. So one of the things that I know that you do a lot in your work is you're looking at how the genes, how

our genetics relate to our susceptibility to sinus disease.

I'd love for you to unpack for that a little more. Unpack that for us a little more. Yeah, absolutely. So one thing about chronic sinusitis and about all almost all of these acquired complex chronic illnesses, I'm talking about illnesses like chronic fatigue syndrome, long-covid, fibromyalgia, which most of my patients who have these diagnoses do have an issue of chronic sinusitis.

On top of that, or as a part of their diagnosis, we're talking about multiple different genes, that are different in each person. And those genes are creating different bio chemicals that interacted a coordinated way, and it's different for each person.

So I think people are really out there looking for, well, what what gene, affects mold? Well, we know that there are some, but that's not necessarily the end all be all at all.

Maybe it's a sliver of why someone could get mold illness. But I think it's important to understand that there are multiple genetic pathways going on as it comes to the sinuses.

There are some that have been seen regarding the epithelium, the sinus epithelium, regarding inflammatory cytokines, pathways and signaling. Regarding tissue remodeling, but nothing quite specific to chronic sinusitis.

So I do like to look at the genes of my patients to really understand, what's going on in their inflammatory pathways or their hormonal pathways or their detoxification pathways, or really any pathway that seems to be showing up as a red flag in their history.

But I can't say that we can necessarily pinpoint a particular gene to, chronic sinusitis or really any complex chronic illness because it's really the person's own unstick.

Exactly. And I think two right are evolving understanding. I think so many people still think that genes, whatever you've inherited that it's an inevitable like you either inherited like I'm going to get diabetes or I'm not, I'm going to get Alzheimer's or I'm not.

But now we know it's so much more complicated than that because it's this whole dance of not just what you came equipped to do well, or what you didn't come equipped to do well.

But which of those genes are turned on and turned off? And what are all of the things that can contribute to that? What I know you've mentioned a few of those.

You've mentioned Maude, you've mentioned the the smoke from the wildfires. We're both in northern California. So that's something we deal with for ourselves, for our patients.

Unfortunately, all too often. Are there any other things that our viewers might want to be looking out for in their environment that might increase their risk for getting chronic sinusitis, and then having that lead to one of these other conditions, including, you know what?

We're what we're really working with is the reversal of cognitive decline, right? So I think, just to tag on a little bit what you said there, it's so important.

And I it's really about inflammation meets the genes. And what causes inflammation for these patients. It's usually multiple root causes. It's in my patient population it's never just one cause.

But usually these patients have an immune system that is in that that's on a hair trigger. They've got hyperactivity in the immune system. They've got a weak immune system at the same time.

So what would trigger those things to then to then, show up. Right. What what would, what would trigger a dysregulated immune system which in the susceptible patient, the patient who might have a genetic propensity to,

inflammation of the sinus epithelium or inflammation to, a heightened inflammatory cytokines load.

I like to think of it that way as multiple root causes. So for my patients, I'd say that mold is a is a big one. It's one that they're often not thinking about.

Think how many times I've asked patients, you know, have you ever lived in a house with water damage or known mold? And they say, no, but we investigate deeper.

I ask more questions and it turns out, oh, yeah, the house did have a leak. Yep. For a long time. Right. So there's there's that, there there are other issues at play.

Which, which, which connect to brain health beyond the sinuses in my patients. And for them, it it's tick borne disease is a big one. Viral load a lot of these patients have, Epstein-Barr virus, cytomegalovirus, Mycoplasma, chlamydia.

The committee up there. Yes. Or parasites. Biofilm fungal issues. So multiple chronic infections can be a contributor to inflammation and immune dysregulation.

These people also have a high environmental toxin load. I'm seeing a lot of metals mercury, lead, cadmium, aluminum. Just just acute exposure just in their blood, in their urine.

Before I even test their, their toxic burden. So environmental toxins, multiple chronic infections, structural integrity is a big one. I think that's another overlooked piece a lot of our patients have, either lacks ligaments or they have tight tissues.

A lot of people are stiff and tight in their neck.

Genetics, environment, and post-COVID changes

I think I've some people who are listening think about how close these areas here are to the senses as well. Right? So if we're not getting adequate lymphatic flow or blood flow, then we can get back up.

And that can also create further inflammation in the sinuses. And then that can aggravate the the inflammation that's already in the sinuses from multiple different microbes that shouldn't be there.

Right. Oh yeah. That's a big one. So I think that's another overlooked piece. I know another thing that these patients tend to have is, a lot of stress, a lot of trauma.

And not that stress and trauma is going to cause these things. But I've noticed that these people have more of a propensity to, to their, to their immune system allowing, allowing for, for such insults to have such a dramatic, to make such a dramatic mark on their lives.

Like the stress allows it to persist right. And it may than it might have if they hadn't been under a lot of stress or been carrying a lot of trauma, heartache, grief, other these other emotions that that stake that can stay with us for such a long time.

Right. And people, even many patients will say, you know, I notice when I'm stressed or when I'm in an OCD place or when I'm angry, my symptoms flare.

And so I know I need to control my my emotions or really work on this piece of myself. Because I have less pain or I have less sinusitis. So that's a big one.

Not that we can control the whole picture. Right. But there are, there are areas where we can, we can shift our mood, we can shift what's, what's going on in our internal world.

And to have that be a factor of what reflects externally in our experience. Exactly. And I'm sure that you, you share this, this with your patients as well, that while we may not be able to change the stressful things that are going on around you, we can help you learn how to teach your body to respond differently. Right? Right.

Because the world isn't going to change, at least not right. Right. And and we can't control how other people are going to behave. But but what we do have some governance over over is ourselves.

So teaching patients self sovereignty for a lot of people that's that's new. You know, they feel like they they don't have access to that. So it's it's a big it's a big deal to work with people on that level.

It is. And it's a very powerful level to work within as well. Yeah. So did you. Because you know we know that upper respiratory viruses, the common cold, flu, Covid, all of these things really have a significant impact on our sinuses and our bodies in so many other ways.

Do you know what are you seeing post Covid? Are you seeing are you seeing any shifts. Are you seeing any changes. How is yeah yeah, absolutely. I'm seeing more sinus issues now than I did in the past, that's for sure.

So prior to the pandemic, my patient population, was not long Covid, right? It was Lyme disease. Fibromyalgia, chronic fatigue syndrome. These mysterious cases.

And a lot of them had sinus issues. So of course, I would test the sinuses. So I've been at this for a long, long time. And so I have hundreds of, tests that I have looked at and can see. Right.

And so I would see often, just mark ons in these patients on occasion I would see, Mark. Yeah, hang on, hang on. Because your video isn't coming through. Oh.

So, I mean, I don't know where we are worried about 2153 there. Now you're back. Oh, good. Okay. Sorry. No, no. Yeah. It's all a little bit. It's still a little bit off.

Let's give it another second to buffer and then, And then I'm sorry if you could just repeat that response. You're hoping what you're seeing after the pandemic is where you were.

Okay. So prior to the pandemic, I would I would have patients with diagnoses. I they still have these I still see patients with these diagnoses. But added to the list is long Covid right.

Prior to the pandemic it was only fibromyalgia, chronic fatigue syndrome, autoimmune conditions, chronic Lyme and tick borne diseases, environmental illnesses.

So these patients definitely most of them have sinus issues, ones that like we're talking about before, maybe they don't even know they have them. Right.

But they have some we can test and we can see and we can see them improve when we treat their sinuses. Now, I would only see one kind of bug usually, and I have hundreds of tests that over the years that I've, I've seen and usually I would see only mark ones, which is that kind of staph infection that's resistant to, multiple antibiotics in common in people with tick borne diseases or, mold issues.

So I would typically just see that in this patient population. Now, here comes, long Covid patients. And, I actually I can't look at anybody that's now my patient without considering that that's a lens I put on everything at this point.

The patients who have complex chronic illnesses, how can I not consider this right. And so now I'm seeing mark ons. Yes. But I'm also seeing multiple different types of funguses.

I'm seeing bacteria that I never saw before. And I have to wonder why. Like why would I be seeing layers of, of pathogenic microbes in the sinuses. No, no.

Wasn't four years ago right. And so I have a couple theories. One is really the main theories. But the masks I think they did us a lot of good. But at the same time, we could have, what, by an exposure walked by some mold.

Put the mask on and then it circulated and then had a chance to colonize in the sinuses. The other thing I'm seeing is, Klebsiella or other bacteria that I would commonly see in the gut.

I seeing them in the sinuses. Now, I think that might have to do with the masks as well. Just the, the come up and possibly breathing them up. I'm not sure there's no.

And the re breathing rate of our own air instead of breathing it out and move away. And having the microbes that we expel move away from us, we just keep bringing them back in and recirculating them.

Right, right. And so this is something I'm seeing that I never saw prior to the pandemic. I think that's very interesting. Is very interesting, very interesting.

So what do you think? How how do you think we can help our viewers to maybe guide their own practitioners to, to into looking into what may be going on with their sinuses?

That's one question. And my and my other question, just so we don't forget to come back to it, is how do how do we treat this? First of all, Mark guiding to answer the first question about guiding them, I think it's important that they see a good functional or natural path like doctor somebody who, understands functional medicine.

I think that's key.

Testing and treating sinus-related inflammation

Somebody who's going to take the time to work with you because in an eight minute visit, which is how long most visits are, you know, that are not in, in private functional care, there's not much that can be done in an eight minute visit.

So someone who's trained in functional, natural or natural empathic medicine, somebody who's got the time for you, right. And I treat it very similarly to the way that I treat the gut, because I'm really seeing these parallels between the gut in the sinuses.

So in the gut, I'm looking to, restore the epithelium. I'm looking to restore, leaky gut in the sinuses. I'm looking to, to help those tissues as well.

So I learned this from a great ENT doctor, actually, to put coconut oil on organic coconut oil on the tip of a Q-Tip and line the inside of the sinuses.

Patients love this. Actually, they notice that it makes them feel a lot better. So we're doing that. And just like in the gut, I want to kill pathogenic microbes.

So based on, the microbes that I'm finding on the sinus colonization test, I'm using antifungals or anti, antibiotics nebulizer, you know, just sprayed.

Right. Oral patients want to just spray something. We'll it'll go up to there. But I'm looking to get it mist it up into the whole area. And it's just not very efficacious to, to just spray them.

Same with orally. Now oral antibiotics will help with an acute sinus infection. I want to make it clear to our audience I'm talking about chronic sinusitis.

So we'll kill the pathogens. And then I want to bring inflammation down. The coconut oil is going to help as well. But I want to work on repairing the brain after this because I can well, assume that there's some brain inflammation.

If you've got multiple, microbes in your sinuses that don't belong there. So I like to use peptides like Cmac or C links. See link super lysine RG three, which isn't a peptide, but that's also something great for bringing down inflammation in the brain.

So I like to use these ones after I've killed the microbes. Because I've noticed that they're not going to go so far in somebody when they still have microbes in there that don't belong to.

Another thing I'm doing, actually, before I'm, working on the brain inflammation is I am, seeding the the sinuses with beneficial bacteria, just like I do in the gut.

Right. So there's probiotics for the sinuses. Lactobacillus Sacchi is is the one for the probiotics. So we can do a nasal flush or, put some on a Q-Tip and some water and line the inside of the sinuses.

So I'm very much treating it like the gut because of the reflections I'm seeing between the gut in the sinuses, and that they both have a huge impact on the health of the brain.

Yes, absolutely. That's really interesting. Well, in it. So the coconut oil is so interesting because we know that that contains a little bit, at least of, of monologue and monologue and also in breast milk is a natural antimicrobial and antifungal.

Yes. And and I tell my patients this is a good way for us to do two things bring inflammation down and start the kill. But but very gently. Exactly, exactly.

Yeah. That's so fascinating. I know I love I love how my naturopathy colleagues bring all of these different things together to help the body, to heal all of the different herbal and botanical remedies, and just using, you know, the the plants around us to help us to heal.

Thank you. Yeah, I really love that. So do you think there's anything else that our audience needs to know about how to care for their sinuses? Are there things that they could do from a preventive perspective to help keep that part of their body healthy, like we're paying attention, as you mentioned, to the gut microbiome and to the gut health and all of these barriers, these interfaces with the outside world.

How how do you recommend that people try to care for that? I think doing a neti pot, you know, just once or twice a week is good. But more often when it's fire season here in California.

And you know, if you've just after you've had Covid, I think it's a good idea to use the neti pot. That's something simple for people to do. And also the coconut oil, I think that's a really important, easy thing to do when you know you've got some exposures.

Yeah I'm definitely going to incorporate that into my own care regimen. That's a great suggestion. Yeah. You can tell I need it right now because I've got this nasty cold. But yeah but you're doing very well even despite the cold.

It's doing okay. You and you are indeed. Is there anything else that you wanted to share with us today? This is really been just a fascinating look at another place where we where we where our brains interact with the outside world.

Yeah. You know, just that there's for people who are suffering with complex chronic illness and cognitive decline or people who have family members who have Alzheimer's, there's hope.

I know that you're bringing so many amazing, talks to your summit and, and I just want to be infusing hope into people because these diagnoses are not a life sentence.

Yet these things can be reversed.

Prevention, hope, and closing remarks

I just want to reiterate that, yeah, I think that's such an important message, because so often we get the message that these complex illnesses that we don't have in conventional medicine, we don't have clear explanations for the causes that when we really dig into people's physiology, like what we've been talking about today, there's so many things we can do to help them get better.

Yes. Well, Doctor Nifi said, this has been a uniquely informative discussion today, and I'm so grateful for your time and sharing this with everyone on the summit.

My key takeaway is that we really need to be paying attention to the sinuses as one of the most important places where we need to be tending to our barriers.

As you pointed out so eloquently today, just like we've been paying all this attention to the gut barrier, and these things are what will help protect the brain from damage.

I'll say to our listeners, if you've enjoyed this discussion today, join some of the other sessions where we continue to dive into my passion, the root causes of cognitive decline and lastly, Doctor Nafisa, where can people find you if they want to learn more about you and your practice?

Oh, we lost the video feed. Or learned? Lastly, doctor. Nafisa, where can people find you if they want to learn more about you and your practice? Yes. So our clinic is in the San Francisco Bay area, close to you.

And at Gaunt, it's Gordon Medical. And we we work with people who have complex chronic illnesses Lyme disease, autoimmunity, long-covid. And I'll be referring our Alzheimer's patients to you.

Absolutely. Because we don't work with patients directly with Alzheimer's, but with the cognitive decline that comes with the diagnosis, as I just mentioned.

And, we've got a think tank of data. So if you get if you work with me, you work with us all actually. So that's exciting. That is exciting. And I think that's so important.

We have a big team as well. I think it really helps to bring the minds together when we're working with these complex diseases. Yes, indeed. Well, thank you again for joining me today.

And thank all of you, our viewers. We look forward to seeing you the next time around. Thank you.