Why Mast Cells Keep You Stuck in Fight or Flight Transcript

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Introduction to Mast Cell and Nervous System Loops

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Sometimes vagal nerve therapy is also, and stimulation is very important with these patients. So mast cells may be trapped in this loop with the nervous systems, this chaotic loop.

but you can get past it, okay? Hi, it's Dr. Jen. Welcome back to the podcast. Today is part two in a three-part series about mast cells. So definitely want to join because this is all the rage.

Everyone's talking about mass cells right now. If you didn't listen to part one, I would recommend going back a few podcasts and listening to that first.

So today we're gonna talk about the mast cell nervous system loop. So you wouldn't think, but if you are having mast cell problems, there's usually always a nervous system component in there.

The body doesn't feel safe, the mast cells system gets activated, and then it's a whole histamine loop, And it makes women miserable and men miserable too, But women specifically because then there is usually also a hormonal component.

So most people with mast cell symptoms, they all say the same thing. My body is stuck in fight or flight. And this feeling that they're having, it's not imagined.

They might be gas lit over it, but mast cells and nervous systems, their physically and chemically connected. So each system can activate each other. This is how they feel.

It's actually what is happening.

How Stress Activates Mast Cells

So this episode is going to explain how mast cells communicate with nerves, how stress can produce a real physical immune system response, and how mold and chronic inflammation can prime the system towards greater reactivity.

So mast cells are actually neuroimmune cells. The mast cell sit close to our sensory nerves, our autonomic nervous system nerves our blood vessels, mucosal services and brain, blood brain barrier interfaces.

So the mast actually respond in nervous systems signals and these include CRH, substance P, norepinephrine, neuropeptide Y, VIP, and acetylcholine related signaling.

So the nervous system and immune system, they're not separate departments. That's not how God made our body. They communicate with each other continuously.

which is important and good if there is an emergency or something that we need to have this major histamine response to but the problem is our body gets primed from things you know in a fallen world like mold that then it's this continuous trigger loop and it becomes a problem and I see it all the time with patients and we're always trying to correct this.

So CRH and mast cell activation. So when the hypothalamus, which is a part of our brain, perceives threat, it

releases chordotrophin-releasing hormone.

And I'm gonna use CR-H in reference to that. CRh helps initiate the hypopituitary adrenal access stress response, the HPI stress-response. So then these mast cells also express CRH receptors.

This means the stress signaling can directly influence our mast cell behavior. So here's a sequence to think about it. Perceived threat or physiological stress leads to hypothalamic CRh and autonomic activation, which leads mass cell activation in those susceptible tissues.

which then leads to histamine, tryptase, prostaglandins, and cytokines, which than leaves to nerve activation, poor sleep, that increased arousal, Which then wraps around in the circle to more stress signaling and sympathetic activation.

So you feel like you're stuck in this pattern of fight or flight that nothing can break and you kind of hopeless. And this is these mass cell activation patients, whether we're seeing the mass cells in their skin with rashes or showing up in the general urinary system with increase urination or endometriosis type symptoms.

They're stuck in this pattern that needs broken and no one's looking at the right way to do it. So mast cells, they're not usually the original source of the whole body sympathetic activation.

There's usually a root cause there that when I work with patients, we find out like what's that root cause because a lot of these mass cell activated patients they're also because they are stuck in fight or flight so much then weight gain comes with that plus hormone disruption and it's a mess but the beautiful thing is it is a mass that can be fixed.

our body is just meant to be in homeostasis. Like God created that and we live in a broken world. So there's gonna be hiccups. There's going to things that happen.

Trust me. I mean, I'm thrown for a loop every week, right? But we need to trust and have peace that God is sovereign and work through it.

Neuroimmune Signaling and the Vicious Cycle

Not freak out because that's fear and that not trust. So mast cells, they're not the original source, okay, of this whole body sympathetic activation, but mast cell mediators can intensify these arousal patterns, this pain, the sleep disturbance, and this hypervigilance we feel.

And a lot of that are those cytokines. So how do mast sales actually talk to the nerves? Like how did they communicate? Well, through neurotransmitters, these neuroimmune transmitters.

These chemicals, okay? So they release these mediators that then stimulate nearby nerves, such as histamine, triptase, prostaglandins, and cytokines. and nurse growth factor.

So these different mediators are communicating. Our body's like so cool that it communicates with each other. We just have to get the communication back.

It's that game that I would play when I was a little kid, like telephone. By the time it gets all the way around, it get confused and the message gets scrambled.

so we just had to the get message back on track here. So the sensory nerves also release neuropeptides, include substance P and other inflammatory signals.

So then those neuro peptides can further activate mast cells, like we talked about, it's kind of like a cascade event. the mast cell and the mass cell activates the nerve.

I think of like two little brothers in the back seat, not that this just didn't happen on the way home from church today,

but sitting in back like activating each other, aggravating each and it's just like we have to stop the chaos and pattern.

So this is what the vicious cycle looks like. We have stress, mast-cell activation, Histamine and cytokines increase. Anxiety and poor sleep and palpitations and hypervillagens.

More sympathetic nervous system activation. Excuse me. I don't know if they'll edit that out, but that's real life. Okay. So those hyper-villiagens, anxiety, poor-sleep, more sympathetic, nervous-system activation, lower threshold for the mass cell activation, because, you know, it's kind of like, there's a lower threshhold, cause it like something's already going on.

So I'm going to pull the trigger faster. And then we have that more mediator release. That's that cycle. And this is what's interesting because it doesn't, these symptoms are not psychological.

They're real, they're happening. But it means that psychological, physical, hormonal infections, environmental stress, all these factors, They can kind of converge on those same neuro, I mean pathways.

And, this where they get stuck. This is where me and my health coaches really focus on parasympathetic training and limbic system training because that is going to tell the body, hey, stop like we're in this like circle of chaos.

And I also like to think like, to give you hope, like the Lord is God of order and not chaos, you know, we think of Chaos and the sea is called chaos and all of that, and we were told in the new heaven, there won't be any more seas or the New Earth.

But I think that's because there won't be chaos anymore, okay? So just give yourself hope and peace that God wants to restore your health, and just sometimes we're looking in the wrong direction.

Let me just say that, because I know other people in my field, they don't incorporate the word, It's just not gonna work, especially with these patients, or it's gonna be temporary.

It not going to be eternal or forever work in peace. So let's talk about histamine in the brain. Histamines, an important neurotransmitter. It is involved in wakefulness.

So think about if you are having some sort of response to something. Like I know when we moved to Nashville, I got allergies for the first time.

Histamine, Sleep, and Brain Effects

And it makes sense because I've been stressed. I have been honest about this. Moving has been very hard, very stressful. Praise God that we're out. beautiful property where I'm in nature all the time and taking care of the animals, because if not, I don't know, it'd be a mess.

And just meditating on the word and all of that. But moving has been stressful and I've got some allergies. and you don't sleep. You don' sleep as well if your histamine is jacked and high and then throw perimenopause on that, right?

So, but I am giving myself progesterone, which we did talk about hormones and histamines. So this is wakefulness, right? Think about antihistamine medications like Benadryl.

I have patients addicted to this all the time and we have to wean them off of Benadyl, so it's blocking the histamine reaction. So what happens? you get sleepy, right?

And then they came with all these fancy that are non-sedative selective histamine, you know, like Claritin and all that, and then you don't have that drowsy effect.

So just trying to connect all the dots for those people that might have an aha moment talking about that. Increased this histamines signaling that may contribute to the difficulty following asleep.

The frequent waking, the wired but tired, that heightened diligence and irritability because I was not in a good mood. The racing thoughts, increased sensory awareness, reduced ability to settle after stress.

Now then what happens if you're not sleeping, then poor sleep is going to increase inflammatory cytokines, increase sympathetic tone, increased pain sensitivity, increases glucose instability, increasing emotional reactivity, and increase mast cell sensitivity.

Once again, we're in that loop. So see like this is So interesting how this all fits, right? How this is like such a big key. And you know what's cool?

You don't have to spend $10,000 on a program with someone that is using the mast cell to bait your fears. No, you can rest in the Lord and you rest and the fact that you CAN do something about this, okay?

Not that I don' think you should work with somebody. I just think that need to use discernment on who you work in this space because I have seen and it is it's not it.

It's all good. Okay, so just be careful because then that would stress you out more. So let's talk about mold. We I don't know what happened, but we like got mold in a bunch of our closets.

Last couple weeks and it's just been really stressing me out. I've been like almost paranoid about do I smell mold everywhere and I'd been you know, taking my glutathione I have been taking KPV.

You know I always take liver aid I should be taking some binders actually and see if that helps but you can go to my website healthy by Dr. Jen I Have a mold protocol up there but I still have to rest in the fact that like, you know, I just can't be worried all the time because I told my husband I'm worried it's in a drywall and he's like it is not.

It's not so it happens in Leviticus it talks about mold, right? So mold I've seen prime this mast cell. Activation so much rashes with patients. I have so many patient stories I had a patient that was on a biologic because his rations were so bad and we looked at his history I was talking to him about like his exposures and stuff So he was like going down to like this well like quite frequently something for like His mother's house or something and being exposed to a massive amount of mold and spending a lot of time in there.

So we got him on a mold protocol.

Mold as a Mast Cell Trigger

He started wearing masks when he had to do anything with that. And he got off his monthly biological shots, biologic shots. This is why I am not. Big Pharma is not reaching out to me to do endorsements and pay off my medical school loans because I get people off of those drugs is the goal.

So anyway, just really interesting, right? Like he was starting to have problems breathing and all this stuff and it was from mold and then his system and his mass cell system has been over activated.

Okay. And what does conventional medicine do with this? They just shut it down. They don't look for the root cause. they just continually try to shut down the body's response.

The body is yelling danger and like everyone's ignoring it. It's a problem. And sometimes like doctors just they don't have eyes to see this, you know, I'll pray for them like give them eyes see and they just, they, just don' or the enemy is using them.

But overall like God will is, using that right for is he has the plan all worked out. I mean, if you look at my story that I've shared multiple times, like the Lord used everything for good that i've been through.

So just remember that, especially if your struggling, If you're in the depths of mold right now, just God will use it for Good. So mold can prime the system, okay?

So, mold is not every cause of MCAS, like let's just Mass Cell Activation Center. Mold is always the cause, but it is pretty common. So moulder exposure to water damaged environment, this can act as an ongoing immune and nervous system stressor, and some individuals are more more prone to this than others.

So we have this innate immune stimulation. These fungal fragments and other components and mycotoxins, they activate pattern recognition receptors, and then that's going to keep activating that immune stimulation, there's chronic exposure can cause airway and sinus inflammation.

I see so many times patients that are being treated for mold inappropriately and no one's addressing their sinus cavities will treat them for this and break up those biofilms.

And then sometimes I'll do a mark on this test if it's still not resolving, and then we have to use something better and stronger. So I did do with Dr.

Musto. who's in charge of the Marcon's nasal swab lab. I did do a podcast with him a few years ago, if you guys wanna listen to that. Go find that, it's on my YouTube also.

So this chronic exposure in this airway in sinuses repeatedly stimulate mast cells and mucosal tissues. And this is very common, we have to treat our nose.

It's a very active histamine center. There's cytokine production, so the inflammatory signaling can affect sleep mood and our energy once again, and then it's going to have that automatic regulation.

Mold really disrupts barriers. So inflammation from the mold exposure can affect the barriers in our gut, happens so much, we gotta treat the gut for mold, the sinuses and airways, and then the skin too.

So this persistent unexplained symptoms and repeated exposure to mold especially if you're living in mold or working in a mold I see a lot, it reinforces autonomic and limbic threat responses.

And I've seen this in my two kids that, were exposed to mold in their preschool. And I brought it up to the preschool and they like didn't care because remediation is expensive.

So they'd rather deny it than do the right thing. So why are rashes so common? I always want to rule out mold when there's someone with a rash. So the skin contains a large number of mass cells.

The histamine is acting through the H1 receptor and it can produce that itching, redness, swelling, hives, even flushing. So all of that could happen.

And then the inflammatory mediators can worsen and we see stuff like eczema and rosacea. Interesting because I had like rosation pattern because i had a mold exposure as a kid that eventually went away.

Gut, Skin, and Nervous System Support

So it's very interesting, you know, hindsight's 2020 but now I can actually help people now. Do I see people like strangers on the street with this and I want to just talk to them?

Well, I use Holy Spirit to sermon and hope it comes up in conversation. And then I do education and podcasts like this. So everyone has this available.

If you have someone that has these symptoms, then reach out to him and send them my podcast. And what about the gut skin connection? So gut inflammation in this fungal dysbiosis, so usually mold and candida are like hand in hand with these patients, this alters that intestinal barrier function.

The cytokine signaling is off, the histamine burden is increased, and there's immune regulation issues. So this dysbiosis is just such a big cause I see in people either candida or fungal mold.

So how do we regulate our nervous system? The nervous, system regulation is so important. So you just aren't going to tell someone to stress less to relax, to not worry about it.

No, we're going repeatedly get the brain and body physiological signs of safety. Okay. I have a course, I will link it below, or you can find it on my website.

It's an Olympic system course. that I show you how to do these limbic system exercises. And they are faith based because the problem I've seen is people go down the somatic or limbic system pathway and they're actually like inviting in things you don't want like new age, like demonic stuff.

And so I seen it with a patient, it was crazy. So that's why I just have this little course out just for people to use like butterfly taps or one of them.

I knew him with your kids. I've had a lot of people that really enjoy this course. So other supportive strategies that you can do include consistent sleep timing.

Okay. Don't like stay up late and like binge on TV till 2 a.m. and then you know, then you're a mess the next day and then sending signals of like danger and it's not going to break the cycle.

Morning light is so important, gentle movement, stretching, walking, four, seven, eight breath and breathing, so longer exhalation breathing. Prayer and scripture meditation are gonna be great.

Having a safe community, I mean, the enemy always wants to isolate us. So having a save community where you can talk about things going on and have that community aspect.

When we're isolated, we are more susceptible to a lot of things. We need to have a community. It's hard. I could just be alone and work, right? But no, that is not the enemies design.

That's not God's design, that's what the enemy wants. Having trauma-informed therapy with a Christian therapist would be appropriate. Reducing your exposure to things that you know are triggers.

Making sure your blood sugar is stable and your nutrition is adequate. And then also making sure that we're addressing sleep if there's an actual sleep disturbance, like maybe you're not sleeping because there is an airway issue going on.

Here's the thing, you can't supplement your way out of a body that still believes it's under threat. And I've seen this. You can do all the medication, but if you don't work on that parasympathetic system and that nervous system, it is a problem.

Sometimes vagal nerve therapy is also, and stimulation is very important with these patients. So mast cells may be trapped in this loop with the nervous systems, this chaotic loop.

but you can get past it, okay? We need to recognize that calming the immune activation and restoring nervous system, flexibility and resilience, they need happen together, it needs to be part of the conversation.

So stay tuned for the next episode. It's gonna be Part 3 of this three-part series on mast cell and mast-cell activation. And we'll discuss why midlife hormone changes can turn up the volume on this entire mast cell activation problem.

So stay tuned. Thank you for joining in. Please leave a review and comments on This post on the podcast so I can get more information out to you. And also I did start up a sub stack.

Look for me and join that. Bye. It's Dr. Jen. Have a blessed day.