Mast Cell Activation Syndrome and Its Impact on Gut and Overall Health Transcript

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Introduction to Dr. Kelly McCann

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Welcome to Health Breakthroughs with Dr. Stengler. I'm Dr Mark Stegler and each episode we cut through the noise to bring you practical, science-backed insights for more energy, better health, and a life that feels like yours again.

Hi, everyone. Hope everyone's doing well. Today we have a special guest, Dr. Kelly McCann, and she's an integrative doctor. Practice is not too far from me.

It's a great practice in Southern California. And today we're going to talk about mast cell activation syndrome and gut health. This is very, very important in terms of how it affects gut function, whole body health, so Dr McCan's really an expert on this subject.

And she's very unique. She's only one of 35 physicians worldwide to have a residential fellowship in the program of integrative medicine with Dr. Will.

So that's pretty unique, so Dr McCann, great to be with you. Thank you so much for having me, Dr Stengler. Yeah. Tell us a bit more about your background.

I know integrative doctors, it's becoming more common, especially here in California. However, we're still limited in numbers. So tell us how you went through kind of your regular training, got into the integrator of medicine.

You know, I always wanted to do holistic medicine and originally I had considered going to acupuncture school, but I made a deal with myself that if I got into medical school I would go.

So I go into four medical schools and I thought, okay, well I guess I have to this. I went to Tulane, did the traditional medical-school route, got a master's in public health along with my medical degree.

And at that time, started really learning about medical acupuncture.

Integrative Medicine Background and Training

I spent some time with a medical accupuncturist, learned Reiki and massage, and really tried to expand my toolkit as much as I could. Continued that in residency.

Did a residency in internal medicine and pediatrics in Phoenix. And then from there was able to do the fellowship at the University of Arizona, worked and moved around a little bit before I found my home in Southern California.

I did the Institute of Functional Medicine training. So I have the that fellowship as well. And then I went on and did training with Dr. Walter Crinian in environmental medicine.

I realized that I needed to understand mold and I did some training Dr Shoemaker and then went and realized I need to learn about Lyme disease. kept going with all of the complex chronic illness.

Lastly, realizing that all my patients were getting more and more sensitive. I couldn't do the usual treatments and

discovered Dr. Lawrence Afrin and Massive Activation Syndrome and have been really focusing on that as a foundational piece to really help people heal from complex chronic illness, but also becoming more interested in like a broader population, recognizing that environmental toxicants are important too.

And so now we're talking about mass activation and gut health. You've done everything you were told to do and something still feels off. Health Breakthroughs with Dr.

Stengler, we go beyond symptom management to explore integrative, science-backed approaches to the issues that medicine too often overlooks. Chronic fatigue, brain fog, gut dysfunction, inflammation, hormone imbalance, and healthy aging.

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Yes, and also you're a board member of the American Academy of Environmental Medicine, so obviously well versed in all this. So I came across you from a pharmacy we both, you know, use and you were doing trainings for doctors on this topic and other ones.

That was great. I'm like, wow, we got to get her on. the series here. So, so people, a lot of the viewers probably have heard, you know, in recent years, it's, the term's been out there more.

Mass cell activation syndrome. I'm sure a lotta people don't fully understand what it is, because a lots of doctors don' So maybe give us, background to all that, if you would.

Absolutely. Mouth cells are normal immune cells. They are born in the bone marrow. And they're related to our white and our red blood cells, and then they move from the bonemarrow to the periphery and they line the areas of interface between ourselves and the outside world.

So they align our upper respiratory tract, our mouth, entire gastrointestinal tract. There in in lungs, there in a skin. We have some in their brain.

What Mast Cell Activation Syndrome Is

and the blood-brain barrier, they also have a high affinity for our nerves and our vascular system. So their job is to fight foreign invaders. They're constantly surveilling the environment to look for foreign evaders, and once they see them, um, what we call mediators, these chemical messengers that are often inflammatory in nature, and then call out the immune system.

Hey, we got a foreign invader. You got to come in and help, you know, stave off the, the attack and, We want them to do this. This is an important job that they do.

The problem comes in certain people in situations where the mouse cells all of a sudden start to become rogue and they will misperceive a threat. So they might see a food or a smell or even touch sensations can be mis perceived as a as threat and they will start releasing their mediators inappropriately.

That's the activation piece. And so what happens with patients is they become more and more sensitive to things that normal people, in quotes, don't have problems with.

So they have to restrict their diet, they start to have restrict lives, have be very careful about their personal care products, scent, smells, basically their lives become smaller and smaller.

And when you have, for example, a mold exposure that's triggering the mast cells, and they're doing their job, you can have all this external problems and sensitivities which complicate the body's ability to handle the treatments.

So until we get those mast cells calmed down, we can't do a mold detox treatment. We can kill Lyme disease, for

example, and really help people get better.

So very fundamental. How do you tie in this mass activation syndrome and gut health? Because there is a connection, maybe direct or indirectly. Could you link that for us?

Absolutely. So many, many of the mast cells are in the mucous membrane in gastrointestinal tract. And so that's one of first places that people tend to develop symptoms.

In fact, Dr. Afrin tells a story about his first three mast cell patients and they all had burning tongue, burning mouth symptoms, so people would eat something, they'd get burning tongues, and then the burning tong just persisted.

Most of my patients don't have burning tongue. That was really kind of a more unique presentation. But any issues in the GI tract, so it could be heartburn, reflux, people can have chest pain from eating things.

How Mast Cells Affect the Gut

They can get burping, gas, bloating, diarrhea, constipation. I had one woman She had chronic diarrhea for probably 20 years and gave her one Zyrtec. Didn't get better.

Gave her a second Zirtecs a day. So now she's on BID dosing. And then by the time we got to three Zirtec a Day, the diarrhea went away. This was after years of trying many, many other things, treating her for all the usual suspects, including parasites.

But it wasn't until we treated the mast cell activation with antihistamines that she really noticed a difference. Then, in addition to mast cell activation, there's another condition that's strongly associated with mast-cell issues, histamine issues in the gut that I want to mention called histamines intolerance.

And histamin intolerances and mast cells activation are not the same thing, although one person can have both conditions. There are two main ways that we get rid of histamine in the body.

One is through methylation, and that's not the one that is relevant for histamines intolerance per se, but there is an enzyme called DAO. And the DAE enzyme is responsible for breaking down histamin in a gastrointestinal tract.

which means if you're eating high histamine foods, if your eating foods that trigger mast cell activation, degranulation, and you have higher levels of histamines in the gastrointestinal tract, or you are deficient in your DAO enzyme production, you going to have histamin intolerance symptoms and these symptoms can be predominantly gastrointestinal or they could result in headaches, fatigue, migraines.

I have one patient who has DAO deficiency and he gets hypertension. Every time he eats something, if he doesn't take his DAO enzymes, his blood pressure shoots through the roof.

Now that's unusual, but it's possible to have a myriad of different symptoms coming from mast cell activation issues in the gut or histamine intolerance in that gut.

So with your patients, let's say they got multiple food sensitivities, they've got irritable bowel syndrome, inflammatory bowel disease, acid reflux, I presume you're always considering these as issues going on with them, and they probably get missed by a lot of practitioners.

Absolutely. You know, one of the easiest things to do when you are trying to work up somebody with mast cell activation, particularly if they have a lots of gut issues, And they're also working with a gastroenterologist, is if the have had an endoscopy or a colonoscop, we can request a special kind of stain for mast cells.

So the special stain is called CD117, and it looks at mast cells.

Testing and Diagnosis for Mast Cell Issues

You can request for a count of the mast cell's per-high-power field. Now, it's suggestive of, not diagnostic for mast-cell activation, but if you have greater than 20 mast sales per high- power field in the biopsies, that's highly suggest that there might be some mast issues there.

Are there other tests you like, maybe indirect, that you'd like to use as well to kind of work patients up for this besides their signs and symptoms? Yes, now it's really a clinical diagnosis and we love laboratory values to help support that diagnosis.

And just a brief aside, there are two consensus groups who have diagnostic criteria. Consensus one is typically your conventional allergist. They have one test that they do called tryptase and there are specific requirements.

So for example, if someone has a baseline tryctase of a certain number and then they're in a flare and they have a higher trystase level than they meet criteria, very strict rigid criteria.

Triptase is more related to the burden of mast cells, the number of mass cells. So much better for identifying people with mastocytosis than mast cell activation.

And then there's consensus two, which is Dr. Afrin, Dr Theothea Herides, and all of my other colleagues. And that's a much broader definition, as I mentioned.

It's the clinical definition. Then for supportive laboratory evaluations, we can use the stains, the CD1-17 stains. Additionally, there are a variety of biomarkers that we check in labs, both in blood and urine.

My favorites, if I'm using a commercial lab, there's only really three that you can do through a conventional lab. That's tryptase, chromogranin A, as long as somebody is not on a proton pump inhibitor because that will falsely elevate the chromo granite A and then histamine.

Now, histamine is not a perfect marker because there are other cells that make histamines, but if you have an elevated histamin level at least two times, that's good enough for me.

There are some specialty labs that you can do as a send-out. Part of the challenge is that the blood needs to be refrigerated. the urine needs to be refrigerated, and so not all facilities have a refrigeration centrifuge to handle the blood properly, such as prostaglandin or heparin.

Treatment Options for Histamine and Mast Cell Symptoms

And luckily for us here in Southern California, I've worked with Hogue Hospital locally so that their pathology department knows how to hand the other markers that we can check.

So we check methyl histamine, which is a histamine metabolite, we can check some leukotriene markers and some prostaglandin E2 markers, and their downstream metabolites in 24-hour urine, spot urine and then the blood work that I mentioned.

Hey everybody, I want to take just a quick moment and invite you to my website, drstengler.com. Here we have the supplements that we've been using with our patients for many, many years.

High quality and high potency supplements, very pure. So if you're looking for high quality supplements where you can notice a difference, both in how you feel on your lab tests, go to our website at dr.stegler dot com.

Oh, nice. Nice. So what kind of therapies are you using with your patients, digestive and otherwise, you know, have these issues going on? What do you like to use?

And I know there are many different ways to do it, but what do like focus on. Yes, there's so many different ways. If people seem like they have a lot of histamine issues, we will do a trial of a low-histamine diet.

I'll also try people on DAO enzymes and recognizing that not all DAOs enzymes are the same. People may have to try a couple different varieties in order to see if they're helpful, do that for a few weeks.

And if not helpful then they probably don't have histamines intolerance and so we can move on. I like to start cheap and easy, right? So over-the-counter antihistamines, your Zyrtec, Claritin, Allegra, Zizol are fantastic.

Some people do very well with Benadryl. And then there are prescription versions of those for the people who are seeing a practitioner who have prescriptive privileges.

I use hydroxazine a lot, which is like Benadyl, There's Clarin-X. I'll also use Singulair, which is a leukotriene inhibitor for some patients, and that's been very effective.

We will also H2 blockers. So this would be Pepsid and there are a couple of prescription versions of H-2 Blockers I love a trial of Chromalin. Which is in a different category, it's a mass cell stabilizer.

For most patients, it's not that helpful. But for the 20 to 30% of patients for whom it is helpful, It is a game changer. And it works differently than some of the other medications.

It really coats the gastrointestinal tract. So it has taken before meals and sometimes before bedtime and acts as a barrier between whatever somebody is eating and the mast cells that are in the mucous membrane.

So that's how cromalin works. Another one of my favorites is ketotipin. Ketotapin is a H1 blocker, a mast cell stabilizer, compounded medication. I love it because it's super clean for patients.

They don't have to worry about any of the inactive ingredients in the pharmaceuticals and the doses vary greatly. I typically start out at like 0.5 milligrams twice a day.

I have some patients on nine, eight, nine milligrams three times a days. So there's a lot of variability in the dosing for folks. And then there are lists and lists of herbal mast cell stabilizing supplements.

The list is very long, so we can use things like quercetin, luteolin, paramine, resveratrol, tulsi, pycnogenol, yes, the list goes on and on, probiotics, et cetera.

Root Causes, Leaky Gut, and Recovery

And how do you find the natural agents comparable to the drugs? I'm sure it varies depending on the person. Is there like a percent, like 25% as strong or potent or is it just varies so much person to person?

It varies from person-to-person and oftentimes we need to use more than one agent. It's rare that you're going to be able to stabilize all your mast cells with one or two things.

Most people need four or five things, particularly when they're in a flare. The hope is that we calm everything down and then they figure out, what do I need to take in flare?

Maybe they need extra chromalin, maybe they needed an extra antihistamine, may be they'd need more quercetin or luteolin. Honestly, I teach my patients how to muscle test because I've got 70 different things that you can try.

Oh, we got to narrow it down somehow because otherwise we'll be here forever just trying to, you know, find things through trial and error. So let's say your patients, let say they got multiple food sensitivities, environmental, digestive problems.

Again, it's going to be depending on the person, how long they've had the problem, You probably see, you know, in a lot of your patients probably within, two to four months, You can see some signs of good improvement.

Is that, would that be accurate or what you kind of notice people with chronic issues? Absolutely. Yeah, we want

people to get better as soon as possible.

And it's really multifactorial, right? So we're trying to move the needle to reduce the symptoms while simultaneously trying figure out what is the root cause?

What is driver for this thing? Because there's a reason that the mast cells are going rogue, they're not doing it for fun. Nobody does that. for fun. Most commonly, I see it's mold.

Mold is one of the hugest drivers for mast cell activation, but it is not the only one. It can be EMF, it can chronic infections like Lyme, Bartonella, Babesia, viruses, environmental toxicants, heavy metal, you just renovated your home and now you've got all these chemicals from all the building materials and it just turned the wildfire on in the mast cells.

So it's really important not only to get people better, but to find the root cause, because otherwise we're just going to be playing whack-a-mole with symptoms, and that's not really…

Yeah, good point. How often do you see leaky gut syndrome and dysbiosis with these issues? Is it an indirect cause? Caused if it just varies? What do find with that?

You know, I think that all of the drivers for mast cell activation contribute to leaky gut, right?

Practice Information and Closing Remarks

Say you're mold exposed and you get colonized with yeast and mold, and then the yeast, the mold infiltrate the gastrointestinal tract and they destroy the gut lining.

Now you've got leakey gut. You're going to have more food sensitivities and more reactions to things. It's really a dance of trying to, you know, calm down the mast cells, identify the root causes, heal the leaky gut so that you can eventually start to eat more foods and calm that immune response.

So there's many, many things going on simultaneously. Yeah, very good. Well, fortunately we have doctors like Dr. McCann who understand all this. It is very cutting edge and it's very much needed.

Helps a lot of people. Tell us a bit more about your practice, where it is located, the website, because this is something, again, there's not a lotta doctors that have an expertise in this area and its a very common problem.

So tell us about that if you would. Thank you. So my practice is located in Southern California in Costa Mesa near Newport Beach. The website is thespringcenter.com.

We are accepting new patients. It is a membership-based model. We do require that patients from out of the area and out the state come and see us for their first inpatient appointment.

I do have medical licenses in a variety of different states. You can reach out to the staff and ask about that if you don't live in California. And yeah, we'd love to see new patients and help you on your journey.

I also have a personal website, it's drkellymccann.com. We have webinar series where I'm inviting colleagues of mine and we have fun kind of summit style conversation on a regular basis and there's a membership for the webinar, series, blogs and other courses as well.

Excellent. Hey, thank you so much for your time, Dr. McCann. You're welcome. Thank you for the invitation. I appreciate it very much. Thanks for listening to Health Breakthroughs with Dr Stengler.

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