Introduction and Guest Background

Hello and welcome back Reversing Mast Cell Activation Syndrome and Histamine Intolerance Summit. I'm your host, Dr. Meg Mill. And today I'm joined by Dr. Kara Wada.

Dr. Wada is a 4x board-certified pediatric and adult allergy, immunology and lifestyle medicine physician. She's also an assistant clinical professor at the Ohio State University, providing holistic, trauma informed and evidence based care for allergies, asthma and mast cell disorders.

And she's going to talk to us today about a new immunotherapy that she's seeing a lot of success with. So I am so excited to dive into this and get started.

Thank you so much for joining us today, Kara. So much for having you, Meg. I'm so excited to connect and, and to connect with the MCAS community. Yes. Well, I think it's much needed, right?

We need to get more information out there. Absolutely. Well, before we were going to get into some great things today. But before we do, can you just give us a little bit of your background and how you got to be an expert in MCAS?

Yeah. So I am a, not only a board certified allergy immunology and lifestyle medicine physician, but I'm also an invisible illness and autoimmune patient to and my I honestly didn't have specializing in mass health disorders on my bingo card.

When I finished training, I thought that they were particularly interesting, and I had a mentor along the way who was very involved in some basic science research and kind of heading the national committee.

At the end of her career. and thought the but also, you know, thought that taking care of, these conditions was a bit daunting because, mast cells are not as well understood in many respects, you know, compared to other things that are bread and butter in allergy immunology, like runny noses and itchy, watery eyes and asthma.

but it really was my own experiences shortly after finishing my training with my own health, that really kind of had me recalibrating, and really connecting deeply with this population of individuals who were coming to see me, especially at, you know, the academics Center, kind of in our region, having all of these stories of their, their lived experiences not being heard, and not being taken seriously.

Diagnosing Mast Cell Activation Syndrome

And it was really out of that and, and really feeling and connecting deeply with that, that then kind of shifted my focus and, and clinically being able to see more of these, these folks and help them get their health back on track and realizing that it was going to take a very holistic approach in order to do so.

Yeah. That's great. And before we get into your approach and you know how you're working with people with MCAS, I would love to talk a little bit about the difficulty in diagnosis and figuring out and kind of the recognition of this, because I think that's that's even the first step is really a lot of people are being told, okay, you're fine, or this is mystery and we don't know what's going on, and it can make you feel really overwhelmed and not know what to do.

But we do have diagnostic criteria. So if we could get a little bit into that. Yeah. So what I typically will, will talk with patients about is initially, first of all, getting a really thorough history.

I mean, that's a huge part of our, our diagnostic skill set. And one of the first things we learn as medical students and trainee is, is, you know, get that thorough history, do a good physical examination, because 80 to 85% of our

diagnoses come from that, that part of the the visit.

And that's why it's important to really make sure we have enough time to spend with patients. Because typically these symptoms, if you really get dig in, there's a lot that's been going on typically for quite some time.

I now oh I'm sorry. Yeah I know, I know, yeah I know that's a, that's an issue because sometimes you're not given the time. So you have to make that time to make that time.

Yeah. It's absolutely. So we are working and it's not perfect that we've worked with our team and are making, you know, adjustments to our call center.

And, you know, I'm still I'm working within a university. So I have to kind of, you know, bob and weave with what they have and, and really ensuring that I have those patients in the appropriate spots in my schedule so we aren't rushed, is really ideal.

so, you know, as I'm meeting people saying, you know, be upfront, I want to know if this is what you want to talk about so that we have ample time. and then, you know, as I'm thinking about that diagnostic process, you know, some of the, the first things we're going to do is check a blood tryptase level and also then usually check urine markers for signs or symptoms of too many mast cells, misbehaving mast cells, these mediators that these little cells release, when they're triggered.

And I want people I say, you know, you know, they very well may be normal and that that is okay. That is just helping us kind of go down one, you know, a little bit different.

It's like a choose your own adventure story from when we were growing up. We're just going to go down this path as opposed to the other path. And really, you know, when I see a normal tryptase, I'm thinking, okay, this is much less likely to be mastered, say, ptosis, bone marrow type issue.

and it's less likely to be hereditary Alpha trip to see Samia. This genetic quirk that about 6% of the population has extra copies of the tryptase gene.

And so they're walking around with elevated levels that on its own can, you know, be its own bag of worms. not everyone is symptomatic, but, you know, portion are and, you know, and this just helps us frame.

Okay, what what category and what, you know, what approach are we going to take? and I also warn people, we likely are going to be repeating these tests, getting one that's a baseline.

And then also making sure you're able to get these tests repeated when you're having a flare up of symptoms as well. Yeah that's important. Yes. Well thank you so much.

So now I know you're using an innovative approach and with immunotherapy. So can you talk to us a little bit about that. Yeah. So when we think about these little mast cells they're these white blood cells that you know we consider allergy cells.

in part because one of the receptors that lies on their surface are allergic antibodies are IgE antibodies. Now we think about mast cell and mast cell disorders.

How Intralymphatic Immunotherapy Works

Not all of the receptors on these cells are these antibodies are these allergic proteins. there are dozens of others. And, you know, that's where taking a holistic approach is really important, because we need to think of all the ways we can calm down.

they're hyper reactive, but we know a lot about these allergic proteins or these allergic antibodies. And one way we've been treating allergies for well over a century is by desensitizing our bodies to these particular substances

that we have the proteins to.

So that's what allergy shots have been, or the, the tablets or solutions or jobs that go under the tongue. Sublingual immunotherapy. The problem has been that these methods are one time consuming.

They take 3 to 5 years. for shots, you're going into the office usually initially weekly, kind of as you're building up eventually monthly, and with with traditional shots, that one and 200 people are having systemic reactions or anaphylactic type reactions.

It's a significant risk. and for my patients who have mast cells that are already stirred up, they're already misbehaving. This really hasn't been a a solution that we have felt comfortable with.

You know, when we're talking in the office, the shared decision making approach, someone's already, you know, reacting to, you know, the little everyday things.

The idea of purposely subjecting themselves to this weekly sounds like a terrible idea. both for them. Right. Like that lived experience. But also, I am not a super risk taking kind of hybrid.

You're not going to see me jumping out of an airplane or suggesting the equivalent to my patients. You know, first and foremost, you know, harm, when I initially started my practice, one of my areas of interest in kind of my niche and this was providing sublingual immunotherapy, these are allergy drops.

And for some folks, these are better tolerated. the advantage is that you are able to take them at home, because the risk of reaction is of a whole body reaction is lower.

But there are you know, there are still drawbacks. There are still some of those people who are more sensitive, who are having too many issues with itching in their mouth, irritation in their throat, or maybe heartburn developing from this treatment.

And again, these are taking day in and day out for 3 to 5 years. it's a significant time commitment. as we think about treatments. So, you know, we're going to get in a time machine, go back to, you know, kind of, over ten years ago, I was, about to embark on my allergy immunology training, and I had this opportunity to go see a visiting professor give a talk at our our local children's hospital.

Our programs are linked. This researcher from Switzerland came over and he talked about this body of research he had been working on for well over ten years that took allergens and harnessed some of the technology and the science we understood from vaccinations and used that to help treat allergies.

And so what they were doing was they were injecting a much smaller amount of allergen, like 1/100 of what we would use in a typical allergy shot in the arm directly into the lymph node.

And in doing so, what they realized is, one, there are much fewer mast cells in the lymph nodes, much here. So they saw marked a decrease in the potential for systemic or anaphylactic type reactions.

They also saw that by delivering that allergen directly to the factory, where that desensitization or that immune system change occurs, where the body goes from seeing that pollen or dust mite or pet dander as the enemy to ignoring it.

That all occurs in the lymph node. It's where there's speed dating going on between our B cells and T cells and all the things. And by delivering it directly there, they were able to get the same type of results they were seeing in allergy shots and allergy jobs over 3 to 5 years in just three sessions.

So at zero at four weeks and at eight weeks. So not only was it less allergen, it was a lot fewer of his hit, you know, from dozens and dozens, you know, maybe hundreds.

And in the case of a long course of allergy shots down to three. and it did so with real, you know, the it's not particularly painful. It's a very small needle.

and, and with less reaction risk. And so, you know, this is a treatment that I'm really excited about, now that it is becoming, becoming increasingly available, it's still considered an emerging therapy.

So it's a little bit out of the experimental range into emerging. some colleagues, have been working on teaching other health care professionals how to how to do this technique.

One of my mentors, through my training and, and through, my practice, has been using it regularly in her practice for several years now and really seeing remarkable and and durable results.

So decreased reactivity not only for our patients with seasonal allergies and asthma and those sorts of things, but also in her patients were coming to see her who had more systemic itchy rashes, feeling unwell.

And, you know, I don't think, you know, will this treatment be a perfect for it for every patient with, cast? No, it's for those who have allergies. Me and especially those who realize that their allergies are really turning up the volume on their other symptoms.

so if we're able to decrease the overall react overactivity to these things are exposed to day in and day out or for weeks at a time during pollen seasons.

I'm really hopeful that this is going to be a new path and and a really great tool to have in our toolbox is we're thinking about, you know, innovative and ways, but also ways that are really tackling this issue, you know, closer to that, that root of what's going on.

Yeah, I love that.

Who Can Benefit and Long-Term Results

There's so many things and so many questions that well, first of all, for being someone who spent years on allergy shots, I mean, the actual not having to go for years and years and getting this shot in your arm and, you know, three sessions is like, oh, wow, I wish I would have met you 21 more than 20 years ago or 30 years ago.

to, you know, that that's really great. You know, that saving that to that time and really like the discomfort and the, like reaction to and all of the things.

So that is wonderful to hear. Now what I guess the one of the first question I have is what lymph node to where do you rate. Yeah. So we use a little portable ultrasound device that hooks up to a nice little iPad.

And we use that to detect lymph nodes that are just under the surface of this skin in our inguinal area. So for those who, don't know, that is the area kind of right by our bikini line, we are able to find there's a couple of, blood vessels really on the inner inner part of that where the leg meets the body.

We find those and then we move far away from those. and then those lymph nodes look like a little raisin, or a little pea just under the surface of the skin.

And so it's, it's really very similar in regards to reported symptoms of discomfort or pain to an allergy shot, if not even less so. because you don't get as much of that redness, inflammation like you would with a bee sting with a traditional allergies shot.

Wow. That's great. And then when. So now for this type of therapy you're you would do allergy testing. This isn't a general mast cell activation treatment.

It's more like, okay, we know that allergies are one of the things that are stimulating your mast cells to release. So

we're going to treat your allergies to bring that element down.

Absolutely. I see this as a tool in kind of this overall holistic approach and thinking about how are we going to help the microbiome and our digestion and how are we going to stabilize the mast cells, how are we going to work on, you know, our brain, body, nervous system input?

this is just one other tool that we have, especially for the that portion of patients who do have true allergies to turn down the factors that stimulate the the growth and activity of these cells.

often, you know, when we think about allergy testing, often times folks are going to think about those scratchy tests. and they're great. I use them every day in the office.

But if I have someone with Marcell disorders and they're on a regimen of antihistamines and they're doing quite well, I, I am very reluctant to have them stop those medications for the least that would be required to do the skin testing.

And so we're very fortunate that we live in a time now where blood testing, looking for those allergy proteins or those IgE antibodies is really helpful as well.

And so, you know, as we think about innovations and things moving forward, this is really helpful that we're able to minimize the discomfort and, you know, flare up of symptoms, you know, during this process as well.

Yeah. That's great. And how when you're saying you do three sessions, does that last long term, then are you seeing long term results and immunity staying.

Yeah. So we're seeing results that are, you know, in studies durable three, five years out. and and when you look at the, you know, studies for immunotherapy, typically those are that's about as long as you're going to see studies for because it's so expensive to keep following people for that long.

but in talking with, you know, those pioneers in the field, they are continuing to have follow up with those patients that are having good results for the long term.

Yeah. That's great. Well thank you. This is so yeah, I think I find it fascinating. And I love finding all of the you know, there's the like you're saying it's a complex situation and there's so many factors that go into why the mast cells become activated.

And really taking each part of the puzzle and looking at it and saying, okay, what are we going to like? You're saying, you know, we need to fix the microbiome, we need to do all of those things and clean up your environment.

But one of the things I see people even that are saying, I know, you know, these are hard things in life where the people know, okay, I'm allergic to my dog, but my dog sleeps right beside me.

And you know, you know that your dog shouldn't sleep in bed with you, but you love your dog. And what do you do in the sleep? Yeah. So these are real life situations that that some that people run into.

And it's like, okay, we need if you're sensitizing to, you know, eliminate we're trying to do all the elimination. But people are, you know, dealing with these allergies all the time too.

Yeah. I think, you know, and I laugh because there certainly was, you know, for, for many decades, allergists telling families, get rid of your pets. And, I would like to think that pretty uniformly now, my colleagues and I are embracing the fact that Hutch adds so much richness to our lives.

Hope for Future Mast Cell Treatments

and for our little ones, presence of pets in the home may help actually prevent allergies in some instances. And so

if we can help people, you know, maintain those relationships with their, their fur children, then I'm all for it.

Yes. Yeah. What do you have anything you else you'd like to share? Any other new emerging data that can help it? You know, I think it's really important just to say, you know, hold on to hope.

There is so much that is being looked into. I we're recording this just a few weeks after I returned from our National Allergy Academy of Allergy, Asthma and Immunology meeting, and so much emphasis was placed on research surrounding Mast cells looking at the interface between our immune system and our nervous system, and how those are communicating with one another.

I think we are on the brink of really significant forward momentum in this field. And, you know, I just want to say, you know, there is hope. And we are working on all of you know, we mentioned those all those different receptors.

There are a lot of treatments aimed at these various receptors that are in the works as well. Yeah. Well thank you so much. This has been so enlightening and helpful.

And could you share with everyone where they can find you. Yeah. So I clinically practice at Ohio State University. if folks are interested in setting up a consultation for Intralymphatic immunotherapy, the best place or the best way to do that is to call our office.

we're on Eastern Standard Time at (614) 366-7297. And if you want to just learn and connect, with me in general, I have my own website at drkarawada.com Well, thank you so much for joining us today Kara.

Thank you so much. This is then wonderful. What's a pleasure talking with you. Have a great day. You too.