Introduction and Dr. Carnahanu2019s background

Hello and welcome back to our reversing mast cell activation syndrome and histamine intolerance summit. I'm your host, Dr. Meg Mill And today I'm joined by Dr. Jill Carnahan, who is duly board certified in family medicine and in integrative holistic medicine.

She's the founder and medical director of Flatiron Functional Medicine. And in her new book, Unexpected Finding Resilience Through Functional Medicine, science, and Faith, she shares her own personal journey.

And we're going to talk to Dr. Carnahan today about how she feels that histamine intolerance and mast cell activation contributed to her cancer diagnosis, and we are going to talk about her own personal story, along with how she worked with people with mast cell activation syndrome and the fundamentals that we need to do.

So. I'm so excited to get into all of this great information. Thank you so much for joining us, Dr. Jill You're welcome. Meg, I'm excited to be here. Well, thank you so much.

I'm so excited to jump into everything all the the juicy details that we're going to talk about today. But before we get started, would you just share a little bit about your own story and personal journey?

What led you here? Because I love that I know you have one, so I want to share that with everyone. Sure. So it's so relevant to Mast Cell because I think unbeknownst to me, a lot of my medical in history from a very young age related to mast cells.

I grew up, in a on a farm in Illinois, one of five children. My mother was a retired nurse who retired to take care of all the children and, really wonderful environment, but kind of unbeknownst to me, the farm chemicals had a pretty toxic effect on my system, and I didn't really know the full effect until I was diagnosed with breast cancer.

Very aggressive form of cancer at 25 years old, right in the middle of my medical training in medical school. But if I look back, there was these clues.

One was I had very, very severe eczema. so with that, obviously in the atopic realm, and probably unbeknownst to me, I had had sort of a leaky gut, which is almost always associated with eczema.

And we know that mast cells can activate, eczema, allergies, all of these things, and then also leaky gut as well. So I think unbeknownst to me, playing a role in all of my history was the mast cell issues.

I had horrible allergies, and I grew up on a, farm with corn and soybeans, and I was so allergic to the corn and soybeans. But once again, there was a clue there because I don't know if listeners know this, but a lot of times on the grain itself, like on the corn, is a lot of mold.

So, when they take the harvest the corn and then dry it and we're dryers, like on our property, there's all this debris that comes off of the corn. And so I think I probably breathed in and was living in massive amounts of mold even as early as from birth.

Early health history, cancer, and Crohnu2019s disease

So if I look back, I probably had this mold load, this eczema, and then 25, I get cancer and then a year later I get Crohn's disease, partially related not only to my genetics, my leaky gut, which was made way worse by the chemotherapy, chemotherapy for the breast cancer.

And I had this genetic predisposition not only towards celiac disease, but towards Crohn's disease through a gene

called node two. So I'm just kind of painting that picture because I think I basically from birth had issues with mast cells and didn't really know it.

One other big clue was after the diagnosis of Crohn's disease. I talked to a gastroenterologist. He said, you know, this is a lifelong diagnosis. There's no known cure.

You're going to need immune modulating drugs, probably surgery to remove part of your colon. I mean, it was very, very, hopeless. And I remember asking right before I left, I said, you know, doctors diet have anything to do with this? And he did not even pause.

And he said, Jill, diet has nothing to do with Crohn's disease. Now, here's where I shifted. And instead of just listening because I respected this doctor very much, I trusted my intuition because my intuition, even though I didn't know any better yet.

So that can't be true. How in the world could a gut disorder, an inflammatory bowel disorder, not have to do with food? So I went on a journey to really research this, and came across some specific carbohydrate diets and other things that really started to change my life and my diagnosis.

And I'm saying this related to histamine and mast cells, because one of the biggest things I did at that time, at 26 years old with Crohn's, was I went on a low histamine diet and it changed my life and was a start of me recovering from Crohn's disease.

And that's so powerful. I know and and that I mean really when you hear that flat out no no hesitation. Diet doesn't have anything to do with it. You know that's a message that so many people are getting unfortunately and sadly.

Yeah. Yes. Well let's let's start with the gut. That's a great place to start. So when we're looking at mast cell and Histamine, I mean really I feel like the gut is so central to all all of this.

So if we could talk a little bit about just, you know, you mentioned leaky gut and mast cells and connections. You know, sometimes I feel like it's one of those things that one chicken or the egg both lead to the other.

Yes, I love that we're talking about the gut first because again, growing up, probably unbeknownst to me, I was born with a permeable God. I probably had in utero exposure to some of the pesticides through my mother.

And again, she didn't know any better. They were doing the best they could. But all these things, I think I was born eczema. As a clinician, I treat as absolutely related to permeable gut.

And so knowing I had that from birth makes me think that I probably had that going on. And I know that I have some of the genetics related to mast cell issues and histamine production and poor breakdown of histamine.

And so the gut really was ground zero for me and so many of my patients. Number one, because it is the interface between our immune system in the world.

So we have this tube, this lumen that goes from our mouth to anus. And basically anything that's, leaking over across the membrane, it's just one cell layer thick of and parasites that are cells that line the gut almost like tiles on your bathroom wall.

And when that grout between the tiles goes bad, you get this permeability and this leak and this dumping of contents of the gut, which is often bacterial coating or bacterial products or antigens from food that goes right into the bloodstream.

And so if you already have a predisposition towards an immune activation or mast cell activation, this dumping of the contents of the gut through that permeable membrane loads that immune system even more.

It makes it more reactive. So then the mast cells, which are very high prevalence in the gut, react even more. Now,

if that weren't enough, sometimes the bacteria itself, certain species in the gut will actually produce histamine.

So very frequently when I'm, treating and dealing with mast cell activation disorders, I look first at the gut and say, is there dysbiosis? Is there yeast, species?

Is there a certain bacterial overgrowth? Because all of these can actually not only contribute to the permeability of the gut, but those organisms themselves can be sources of histamine for the patient.

Then on top of this, when you have access histamine production, that creates more permeability in the gut. So it's just this vicious cycle like you alluded to, where you have, contents of the gut there leaking over, creating more permeability, more immune activation.

The histamine leakage causes more opening in the gut junction. And then this dumping and it can be a real vicious cycle. And I do think looking at the gut as the microbiome contents, the, the, species that are there is a really good first step to starting to control the mast cell activation.

And it can be tricky because I know a lot of people are very educated on the gut now. Gut health. It's so important. Fortunately we're getting a lot of more education.

But a lot of the things that you do, like the bone broth or the fermented foods or even certain probiotics can actually stimulate the histamine. So it's sometimes even people I always like, I'm telling people, make sure, you know, we need to look at doing it the right way for you.

It can be different for people. I love that you're saying that because so often, you know, you go to these influencers or you're on social media, it's like everybody should have bone broth, everybody should have fermented kimchi.

Not everybody can tolerate that. And this was my story way back. I had no idea that foods had in common high histamine, but I just knew that things like fermented foods, even vinegar, a really, really basic fermented food, pickles, sauerkraut, would all really bother me and cause rashes.

Wine, which is fermented to create the alcohol, of course, and things like bone broth which are good for you foods, right. And yogurts and things, all of those things would bother me.

And if you think about it, if you're listening, you're like, well, what's fermented food? How do I know? That's kind of simple, because when we break down proteins, this could be in cheese or meat or any sort of food that has protein.

Those amines that are created from the protein breakdown will create more histamine, histamine action. So I always think of it that way because it's usually leftovers like or aged meats or cheeses or things like, smoked salmon or jerky or anything that's dried or aged or, or it could be a meal that you have.

The first day is perfect. And then three days later, later, as a leftovers, it sat in the fridge.

How the gut drives mast cell and histamine issues

And those proteins have broken down. And the same way with fermentation. Fermentation is classical. Break down of these proteins. Whether it's a vegetable or a meat or, fermented, product of any sort.

And those things are all high histamine. So they tend to be the ones that those who have massive activation or histamine intolerance, which are closely related, have problems with.

Yes. And do you find the now that after time that you can be more flexible with your diet. I, my family will say because I had to be on a very strict diet for a while and then even like I was eating with my father who I don't eat with very often, and he was like, wait, I thought you didn't eat that?

And I'm like, no, I actually, I can tell right now my kids are always saying because they remember all the things I

couldn't eat, but now I can have so much more flexibility.

Do you feel that way and see that often happen when you're working. 100%? And I love you say that because I have had friends and even ex-boyfriends and people that are like, wait, I thought you couldn't eat that, right?

And that was like, they're like trying to say that you don't really know what you're doing. Yeah, it's true, it's not true. Because. And when we're in flares too.

So when I my gut is in amazing shape, considering I used to have Crohn's and celiac, like, I can eat a lot of things now, I still avoid corn and wheat and dairy and certain sugar, alcohol, but a lot of other things that I would have never considered before.

I can eat. I can even have a sip of wine once in a while. whereas I, you know, used to couldn't touch it. and it's so interesting because it really does.

And the same thing with, meats and things like that. leftovers used to be a big problem. Now, I usually have no trouble with leftovers. one little story that I think is interesting that I just recently learned with histamine is and I think some of your listeners will relate.

So I was in a hotel, at a conference in October last year, and I had a piece of fresh sea bass. And I love sea bass. I don't need it a lot because it's a higher mercury food.

But when I'm eating out and I know I can get a really good piece of sea bass once in a while, I'll have it. Delicious, right? I remember that very first bite of that sea bass.

Something was just a little off, right? It wasn't off enough to not finish my meal or even say anything, but I had this intuitive sense. Speaking of trusting our intuition, that was like, something's not right.

Ate it all. No problem. Left. Two hours later, I woke up from a dead sleep with the worst what you would call food poisoning I have had ever had. I literally vomited the whole night long.

It was horrible and I got so low blood pressure. I literally passed out and had a concussion from that. Like it was a horrible night. And I'm alone in a hotel. Like I wasn't sure.

I was one of those nights where, like, I rarely am afraid, but I was like, I wonder if I'm going to not be able to get up. And, I'll say I was fine the morning I called it.

mobile I. V. unit got some saline and I was fine. But here's the deal. You would have looked at my symptoms and thought I had food poisoning, and that's what I did.

But as I looked back, I thought, no, that was histamine. That was a piece of fish that had been probably frozen and thawed a couple times, maybe before it got to me.

And so the breakdown in that protein and I knew something was a little off, but I am certain now that wasn't food poisoning. That was actually a massive, massive load of histamine that caused because it was so violent and so quick and there was no fever, there was nothing weird about it.

And I just wonder how many people who say, oh, I think I got food poisoning. What if some of these episodes are actually just a massive histamine intolerance from a, improperly prepared, entree?

Wow. That is that's so interesting and enlightening because people aren't. You're just like, you're right. You're assuming that it's food poisoning. And so when you have this huge histamine dump, then you're having wow, that is that's really a good start.

I think it could present similarly. So again people can have food poisoning too. But often that's a little longer a little

bit more gut issues. And for me it was so violent and quick.

And I mean just it was awful. But but I think that can happen with histamine as well. And I thought it's interesting for people to be aware of that. Knowing that, that that's histamine next time.

If anything happened like that, for someone who's listening that thinks, okay, I eat something and I'll have a reaction, what do you recommend? Number one, trust your intuition because I think most people like me that you have this little, tiniest sense.

And usually we're like, oh, it's no big deal. Or for me, I don't want to make a big deal to the waiter. Right? So I'm like, I'm getting better at that.

but it was one of the things that I was like, oh, no big deal. I knew, though, the moment I took the first bite, something was not right. So that's number one.

Number two, water is the ultimate antihistamine, which means when we're hydrated, and that night, again, it's very rare for me to drink any alcohol. I think I had a tiny bit of iron when I ordered glass.

I like, have two sips, but I think I had a tiny bit of alcohol that night with dinner, which would have exacerbated the dehydration and the histamine load.

and then later on, what I would say is sometimes you can't really overcome that. But something like if you have magazine, if you have Zofran, if you have Benadryl, had I known in hindsight I would have taken an antihistamine.

The problem is when you're vomiting, of course you can't keep much down. So, you know. Take the Zofran in order to. Is so hydration, avoiding alcohol and trusting your intuition.

But here's the other thing. And this is what I did the very first thing I woke up. And fortunately I was in Scottsdale, Arizona where there was mobile IV's galore.

But if you have the access to call someone to come give you an IV of fluids, even if it's just saline, that literally within probably ten minutes of getting the IV, I was 100% normal.

That's how I knew it was histamine and that food poisoning was. It was such a quick reversal and that reversal of that. When you get dehydrated, it's going to be so much worse.

So, yeah, that's what I would do is do this. I thank you for sharing that. So when you're, you know, can we walk through a little bit of what what you do with when you see someone come to you and you're suspecting MRSA because I know there's it's it's multi systems sometimes hard to identify like many of us have had this different symptoms for years not knowing what's going on.

So it's sometimes hard to figure out. So I wanted to talk a little bit about that procedure of kind of diagnosing. And then what we would do.

Recognizing mast cell symptoms and diagnosis

So the first thing is it is multi system multi symptom. Like many things like mold and mold, the connection here is mold. If I've talked to some of the key leaders in the area for both periods doctor.

let's see. There's a couple at I think their name in a minute. They've written some of the papers. Anyway, the, consensus is that it is often mold is one of the biggest triggers of mast cell activation.

So if you do have someone who's gotten much worse and is not getting better and has had a mold exposure, you just have to have that in your differential.

But both infections and toxins, heat and cold hormones, stressors. I could name 101 things that can trigger mast cells. That's kind of a tricky thing to do.

There can be multiple triggers. it affects all these different systems. And so we almost always we think of histamine initially as like congestion, runny nose, itchy eyes, rashes, eczema, allergies, asthma, all of those common things.

But typically with mast cell activation, it can affect the heart, cause tachycardia, anxiety, palpitations. It can affect the gut, as we said, causing either heartburn or diarrhea.

Interesting. Heartburn is a very unique but clear symptom of excess histamine. So sometimes just heartburn alone, after an exposure or after a food is an indication of high histamine.

That's why the H1 and H2 blockers, part of those are just, acid blockers because they will decrease histamine production and thus decrease acid in the gut.

like I said, the skin, the brain, when I look at a mast cell as a big like a map of symptoms, the number one symptom, people complain of is, altered cognition or poor memory or foggy thinking or anything in the brain, because the brain deals with, histamine as well.

So those are all the symptoms. And usually what I think about is if they are really reactive to supplements or protocols. So say I think that there may be a mold exposure, but they can't tolerate anything.

if they have severe gut issues, more permeability issues where they're all of a sudden reacting to more foods, more detergents, more things in their environment, pain and brain can be big symptoms.

So if there's a lot of pain symptoms, if there's a lot of brain cognition symptoms, as they mentioned. And then of course the skin is a massive organ of a mast cell.

So if there's rashes, unusual itching, dramatic raffia where you draw a line and you can still see that line 30s later on the skin, which is mast cells in the skin.

and then you can test for this. And there's a new consensus two for Mast Cell that was written by, some of my favorite, you know, friends and colleagues.

And this is a great way to look at it. You can actually check for prostaglandin D2 in the urine. You can check for trip days in the blood, histamine in the blood.

And there's several others I do frequently run these tests. But the most important thing to understand is that unless you're actually in a acute reaction, it's very common to have those tests still come back negative.

So the diagnostic criteria is signs and symptoms that fit were met with mast cell activation response to treatment. And may or may not have the lab. So you don't have to have the labs to have a diagnosis, but you have to have the symptoms consistent, as I mentioned with Marcel.

And then a response to treatment and treatment, we could go into that. But that's a whole slew of a list of things that are important. Yes. Yeah. That's what those are wonderful things.

And I think that brain fog is one that is huge, that people aren't associating. It is getting used to understanding that it's not just the congestion, the histamine symptoms, it's a whole body issue.

And and even that brain fog cluing in, there's just so many ways different people present. So it's yes, it's important to know all of the different things.

Thank you so much. Said like yeah let's move a little bit more into treatment. Got it. So in my experience and this is in the literature as well, is you really need multi layers to control this.

And when I think of order of operations, if there's an infection like Epstein-Barr Lyme and there might be a mold exposure or heavy metals or chemicals.

And then there's mast cell activation, there's an order of operations. And I think mast cells right at the top because it's really difficult to get any treatment, protocols if the patient is really, really reactive.

So this is actually one of the first places that I start now, having said that, like I said, there's multiple layers, there are medications and medications, and most patients are useful.

And many, many patients need more than just supplements to keep them under control. So let's start there H1 and H2 blockers. So for example maybe you're taking Zantac or Pepcid would be there.

I think Zantac taken off the market should be that generic Pepcid Renata Dean those two layered and then we would look at things that are mast cell stabilizers like Manta, Lucas and my very favorite, which is catarrh, often very, very powerful.

Probably my most favorite and most well-tolerated is Ca2+, often a milligram or two at bedtime. other things in that category, steroids, which I don't like to use, they can create more permeability and suppress the immune system.

But in some severe cases, steroids are life saving and I'm not afraid to use them when needed. If someone's in a really bad flare, just even a steroid taper or burst can kind of calm that down.

Then there's all kinds of, immune modulating drugs. Again, these are heavy hitters like Zoll er, and some of these, blockers of either immunoglobulin E or, certain, cytokines.

And again, in the really severe cases, those can be life changing. And life saving. But typically I don't go there unless needed.

Treatment strategies and root-cause healing

Bisphosphonates, which are used for bone improvement can also lower histamine response. And so some of these other things can be off label. Those are most of the medications.

There is also some, evidence that lotus naltrexone can modulate the immune system and calm the histamine reaction. So those are kind of the ones that I'm typically using.

but naturally I always like to throw these in. natural agents are quercetin is my top favorite. I use that with everybody. I take it myself. Chinese skullcap is another one.

I really, really likes Gouda. Lauria is another name for that. luteolin and, some of these, flavonoids and then vitamin C, super easy, super basic is an antihistamine as well.

And you can kind of layer these on, let's see, there is another one. paraffin can be really helpful and it just depends on patients. I'll have them kind of trial and error.

But most patients who are getting control with these substances maybe have 2 or 3 natural things and 2 or 3 drugs. And that's really common. So if you have mass fluctuation, don't be surprised that it takes more than one thing to get that under control.

And then as you and I talked in the beginning, you want to go the root cause and say, are they making too much histamine? Do they have overload of gut bugs that are creating more histamine?

are they in impaired in their genetics that breaking down histamine. And you can go with those kinds of pathways as well. Yes. Yeah. And that's, that is in really looking at it, you know, I love the whole multi-layered approach.

And that's what we're that's what we're trying to do here and look at all the different factors. And then and then I'm thinking, you have them on the low histamine diet while you're doing these things too.

Yeah. Thanks for mentioning that because that's just like a given. But instead but actually really important to mention because we didn't. And it's really like honestly like with my Crohn's and that and not knowing that I was really histamine intolerant and also mast cell activation, probably the biggest thing I did more than anything else was, the low histamine diet.

It was a game changer for me. and then I used to take Benadryl. That would put me to sleep. It it really, really helped. And now that I know the newer ones, I fortunately, now at this stage, I really don't need a lot of antihistamines except for quercetin.

But back then, I did all kinds of over-the-counter and prescription antihistamines. But just that point of now, you don't have to. And I think whenever you're feeling so sick, you know, whenever you're reactive to everything, it is taking that pace.

There's that being patient and really going step by step. But, you know, say two steps forward, you know, maybe you'll take a step back and then you inch forward and and just getting to that place where you can tolerate more things where and it's a long game, but if you're willing to do the work then you see such difference.

It really is. And and comes do a couple things come to mind is you're talking one is there's another really, expensive but powerful treatment for those who have really suffered and aren't getting traction.

And that's IVIg. This is an IV immunoglobulin therapy. It's a it's from plasma donors and it contains the immunoglobulins IgG sometimes a little bit of IGA from donors.

And that not only supports immune system to fight infections, but the more powerful pieces it calms down autoimmunity and muscle activation. And so over time that could be a really powerful treatment to stabilize someone who otherwise you can't stabilize.

But unfortunately, the cost of that if you don't have insurance is really prohibited. So you need to get insurance coverage and find reasons for that.

and then the other thing we didn't mention, which I think plays into this so beautifully, is if you don't feel safe in your body from either not dealing with old trauma or emotional issues or relationships that are toxic or a moldy environment for any number of reasons, then you really need to work on the safety in your body because, most of the time the people who are not getting well from mast cell activation have some un, dealt with trauma.

Yeah. So that's a huge piece to be working on. It is. And a big one. But important. Yeah. So thank you so much. You've given us such helpful information.

This is wonderful. And where can everyone find you. Yeah. My website has everything. JillCarnahan.com J I L L C A R N A H A N.com and yeah, lots of free resources.

There are tons of articles on mast cell activation. Thank you so much for being here today, Jill You're welcome. Thank you. Have a great day everyone.