Introduction and case study overview

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 my esteemed colleague, Dr. Gail Clayton.

Dr. Clayton is a clinical pharmacist and a certified nutrition specialist and a professor of biochemistry. So she has so much great information to bring to us today.

And we're going to do something a little bit different that I'm excited to share with you. She's actually going to do a presentation and go through one of her patient cases of someone she treated with histamine intolerance.

And so it's a whole new world that we're going to see. And I'm so excited to have you with us today. Dr. Clayton. Thanks, Meg. yeah. 2024 is going to be my year of, presentations.

incredible stories of healing, because a lot of people, they get this mast cell and they're they're in a lot of fear. They're scared, and they think that it's it's permanent.

And, and then they, they don't really know what to do about it. Okay. But there is a lot of hope. And so, you know, my presentation is basically targeting, you know, driving at 53 is what I named it.

Okay. targeting the histamine intolerance using organic acid nutrient intervention and wellness strategies. So when somebody has this mast cell issue going on, you know, there's so much there's so many things that contribute to it.

And you just kind of like, oh, well be your you can get very overwhelmed and like, so where do you start. Right. Okay. So you know, in functional medicine we always want to really review the case.

And we want to remove anything that's driving the symptoms, anything that's triggering anything that we see up front that we can make changes. And okay. So like, a lot of times mast cell is, triggered by toxic mold exposure.

So you want to rule that out. And if they're still living in, a toxic mold environment, you've got to remove, you know, get that fix or remove yourself from that.

And then, you want to remove the inflammatory foods, and we recommend the mold detox diet. you can go to Molddetoxdiet.com and, and it's a course that me and Dr. Christensen made, for kind of a DIY and getting started on your mold, healing journey.

And then, of course, removing all the food allergens that could be causing, your immune to become dysregulation dysregulated. Clean up the lifestyle. So what does that mean?

That means like if you're using toxic chemicals and you know, make up with lots of chemicals and, fragrances, perfumes, air flow, plug in air fresheners, those, those things just add to your toxic load and make things worse, cleaning up the gut pathogens and then finding out what are all the stressors in your life and, participating in a program to kind of retrain the brain.

So it's kind of calm down. And then, of course, we want to start repairing things. the, the the gut, the gut needs repairing with some gut repair nutrients.

We always want to fix any kind of anemia and blood sugar dysregulation first, because the brain needs two things to be subtle to to work properly, it needs oxygen.

And if you have anemia, you're not going to get enough oxygen supply to the brain.

Functional medicine approach to histamine intolerance

And it needs a steady, source of blood glucose. And so we have to get that in and order so that that can help lower the stress response that's going on in the brain.

And of course, fixing all the cell membranes, supporting the adrenals with things like electrolytes, vitamin C, minerals and adaptogens and state, we want to focus on stabilizing the histamine response.

And sometimes we have to use over-the-counter and prescription antihistamines. And you know, and then I like to use that in combination with natural ones, like where certain metals and polyphenols.

So in my first session I'll kind of go through all of that. And then, I want to do a deep dive like organic acid testing because organic acids can really help you target areas, of intervention for histamine metabolism.

And then, you know, fix the nutrient deficiencies that show up on that testing. Food sensitivity testing can be very helpful. There may be a food that you're consuming that's helping to drive that histamine response.

And then, of course, just run the regular conventional labs just to, rule out any common stuff, you know, with the CDC and the CFP, thyroid lipid, cholesterol, vitamin D panel and some doctors like to do a hormone panel that I kind of like to just start with the basics first.

And so a lot of people don't realize how important the diet is. And in our mold detox diet, course at molddetoxdiet.com, we're talking about the four main diets used and mold illness.

And and you'll learn you you can learn like which one is best for you. Sometimes we have to do a combination of them. But that diet should always be first line.

because food is the most inflammatory thing in our body. it can be very inflammatory. And so lowering that can really take the stress off the histamine response.

And then I put this diagram here for this cell membrane. You can see these little pink bubbles. That's the outside of the membrane. That's the polar part.

And then the the cell membranes are two cell spec. And the polar part is on the outside and on the inside and in the middle or the green, those lipid fingers and they're vibrate very, very quickly and they vibrate so quickly.

And it, it, it helps preserve the, the heat for the cells. And, but the thing about those, those lipid tails is they're very, very susceptible to toxic, things that we'll, we'll, we'll, impair them and they can get, you know, all tangled up like that.

And, and then you're going to have a problem with things getting their nutrients getting in and, toxins getting out and then that. Remember now the cell membrane on that, on the surface of it is where all the scepters.

So all of the signals are going from one bouncing off of one cell membrane to the other. So if it's all impaired, that's going to create even a higher stress response for the, the amygdala, that's thing going to release excessive histamine.

So we want to stop eating and doing things that in a damage it like the air fresheners, fragrances, you know, chemicals and smoking. we want to change out our personal care products and cleaning products and safe and natural, the following with the anti-inflammatory diet.

And be very aware of the fact that are in your diet. A lot of the fats in the processed foods are, very toxic. And they're already oxidized. And that creates a lot of inflammation.

So we want to have a really good intake of omega 6 to 3. And again, like a 4 to 1 ratio. And many times I say

people that are not eating any omega three foods like fish and nuts and seeds and stuff and one thing, you know, that has come to most of the functional medicine practitioners attention is that most of the commercial cooking oils are fraudulent, even though they have this really pretty label that says it's organic and it's, you know, you think that it's a good source and, and, a bunch of my, clients were using an organic, avocado oil that we bought from Costco, the same brand.

And all of us had lipid oxidation like four times the reference range. I was even having chest pain. So that's when I realized that most likely was fraudulent.

And so, we all I had everybody stop using it. Though I did find a really good organic, olive oil, source, from myGreekorchard.com. So, ghee, coconut oil, and then, you know, olive oil if you buy it directly from an oil tree.

Or you can go to myGreekorchard.com. They have a pretty good, olive oil. And then of course, lots. Of good point, because I know that that's something that a lot of people struggle with.

And even when you're looking through on the shelves and the fraudulent labeling, it can be something that you feel like you're doing right in or not. So, yeah, even even if you're going to Whole Foods and Trader Joe's, I've just gotten to where I just don't trust any of the oils, none of the seed oils.

and you can taste the difference between a pure olive oil and the ones that are fraudulent. the pure is, you know, really green, and it has a much, richer flavor.

And then, of course, you want a really good array of antioxidants, the fat soluble vitamins A, D and K, clear thiamin and vitamin C, that's that's kind of where you start at restoring cell membranes.

And also you want to make sure you're retraining the brain because every time you're breathing in these mycotoxins, the amygdala that sits on top of the hypothalamus, it's processing that and sending a stress response.

And so that stress response is epinephrine or epinephrine and histamine okay. And once that gets turned on chronically it doesn't turn off by itself. You have to retrain it to go back down the baseline.

I just had a follow up consult with a, lady yesterday, and, she couldn't she was only eating chicken and potatoes. That was the only two food she could eat.

And she couldn't take any supplements and everything. She had all this fear. And so we really spent a lot of time talking about all the ways she could retrain the brain.

And so she, dove into the Gupta program about a month ago. And she we just had a follow up yesterday, and she says she's been in two hours a day, and she got a mentor, and all of her fear is completely gone around saying, and she's starting to eat foods.

And she says, yeah, sometimes I have a reaction. But I tell myself, it's no big deal. It's no big deal. And before the fear was just like uncontrollable.

And, so when you have that fear, whatever reaction you have is going to be 10 to 100 times more. So, you know, retraining the brain and letting go of that stress response has to be part of any histamine program.

I agree, I do that with everyone that I work with because it it's a huge component of of true healing. It is it is. Okay. So this is my my patient. we're going to use her initials D, a 53 year old female.

Diet, oils, and cell membrane support

And and you know, as a treat for you guys, I'm going to share my slides and the protocol on my. If you, when you, you can go to my website, the mobile detox diet.com, and there'll be a link to log in the full script and create an account.

And then you can just go to the protocol section and then, look for the protocol of the histamine case study at DEA. And then I'll, I will have all of the exact supplements and doses that we used in this patient.

And I'm going to put the PDF and these slides in there. So you can kind of look at it and study it there. Maybe there's some things in it that you can use to to heal yourself.

Okay. And there's no to buy. You don't have to buy anything, but just, that's where it's going to be. But so when I start with a patient, the very first thing is I want to know is what's going on with you?

What are your main symptoms? Okay. So we've got all these systems and the four main systems as the CNS hormone or the gut respiratory and scan. And I highlighted the biggest, complaints, her main issues.

But with her CNS and hormonal, she was having headaches with weather changes. She had vaginal atrophy, torn ligaments. Her rotators were a mess. I mean, she had a lot of pain in her rotator cuff, and she had a lot of joint pain, fatigue, palpitations, obesity.

And in her get a lot of gas and bloating, overgrowth and bacteria, yeast, food intolerances, constipation and then, respiratory. Her eyes watery and itchy and her skin, she the biggest thing about her skin.

And she was having hives every single night that would come on. And she didn't couldn't figure out why. You know, it was like after dinner and then she was having some hair loss. So, you know, when you're looking at, a patient with histamine, you want to, you know, first look at what, what how the histamine is manifesting because it's different and everybody.

And then as you go through their history and you want to go through their diet and say, okay, what from their diet could be driving this. So then I do a diet questionnaire and I ask them a lot of stuff about their diet.

And so her diet contributors, there's like eight categories of foods that cause 80% of the, the allergic responses in our body. And so when we're going backwards from already being in a bad place, we have to remove all of those.

And so what she was consuming that was on that list is like wheat gluten, nightshade, dairy mat, shellfish and eggs. Okay. And she did know that bread caused more fatigue, but she was still eating it and, insufficient.

She didn't have enough protein with each meal. You know, protein is very, very important when you're in the ditch. Your body is in a catabolic state, and it's breaking protein down with toxic mold exposure and mass.

So your body's in a catabolic state and you're spiraling down. In order to get out of the ditch you have to have a lot of protein and go. But your body and anabolic state, that's the only way you can heal.

And that's the, you know, protein is what turns on the mitochondria to make ATP okay, free form amino acid can turn it on, get you out of a catabolic state into a metabolic, anabolic state.

And so you have to have sufficient protein with each meal. And her diet was lacking in polyphenols. Polyphenols is very important in modulating the immune system.

And actually they feed our healthy gut bacteria. Okay. She didn't have enough vegetables. Quantity and variety okay. Now some of the other predisposing factors was she had the dreaded MT FA six 717 homozygous.

And if you don't know what that is, that's a genetic variant that is associated with very poor methylation and it's associated with a lot, increased risk for a whole lot of diseases such as cognitive decline, histamine intolerance, cancers and just, you know, shorter lifespan.

But if you know, you have that, we can, you know, you can bypass it and basically level the playing field. And the homozygous is the worst variant to have.

You can lose as much as 80 to 90% of your methylation capacity. And that's how we break histamine down through methylation. So she's already set up for histamine issues.

Okay. and then she had, her gallbladder removed at one point, you know, the gallbladder is really important. It's our vesicle where we store bile. And every time we eat, the gallbladder squeezes and releases bile so that we can absorb the fats from our food.

So if you don't have that, then you have the steady trickle of bile in your in your gut. And bile is very, very, very irritating to the mast cells. Okay.

They can do granulation release histamine mast cells is where the histamine is stored. So you know that's kind of suspect. It doesn't always cause a problem.

Either that or they're they they're not secreting enough bile. So you know we kind of have to try to differentiate that. Do we need more bile or do we need something to mop up the bile?

Well when we're dealing with this okay. And then she had a lot of hollow space involvement, chronic UTIs. And then, you know, she had a high, high viral tire.

So when you have high viral tigers, that means your innate immune system is impaired. And mold will cause your innate immune system to be impaired. It really the mold what what it wants to do is it wants to hide from your immune system.

So it damages your innate immune system. It pushes it way down. So now it can live in your body. And, and so she was caring for her 93 year old mother.

Actually, her mother was my first patient. And came to find out her home was extremely toxic of mold, and she was spending a lot of time over there. We ended up she ended up having to move her mother out of her home and having it completely renovated, and then moving her back in after after the renovations, because her mom was just gone at nearly logically, she was a mess.

and imagine taking care of your 93 year old mother that's going through severe neurological issues from mold poisoning. it was a very stressful ordeal for the mother and for my patient.

she was using toxic products. She was wearing perfumes, and, so, of course, you know, I told her that's got to go. She has a history of PMS. And so what with PMS, I always think about maybe there's a problem where maybe they're not getting enough B6, magnesium deficiency or a fatty acid imbalance.

Remember when I was talking about the cell membranes? We have to have a good balance of omega six and omega threes. you know, and so that can really create a lot of inflammatory problems, especially in women, with PMS.

And then her sleep pattern, a high cortisol pattern. Of course, you're going to have high cortisol when you're exposed to mold. So the pattern of that sleep is you can't fall asleep.

And sometimes you wake up a lot at night, and then you wake up feeling like you've been hit by a truck. You're not rested, you're not restored. And that's really a high cortisol pattern.

And then she's got the you know, she was about 80 pounds overweight or 60 pounds overweight, something like that. So you she's got all of these other things going on.

And so now you have to consider all of these combined stressors. So when you've she's got this stress they get dysbiosis the infections the viral titers mold exposure the chronic UTIs and obesity.

You add them all together. What happens is like your total load is really high and that really lowers your histamine

threshold. So, it's really worse to have multiple small triggers than it is to have one big trigger when it comes to histamine.

Brain retraining and stress response

That's why the solution isn't just one thing you have to like do a full assessment. We have to, like, work on all of these things together to get that low down and to raise that threshold back, to restore or, you know, actually restore.

I actually, you know, it's going to say restore your immune system, but to restore sanity in your life. I think that that's a good point, because a lot of people are hearing like, oh, just go on a low histamine diet. Oh, just go on.

And really, you know, just reiterating that it isn't just what you eat. It's all getting all of the things, like you're saying, restoring everything in your health to bring all the things back where you have a lower threshold because I think it you know, sometimes that's the message that people are hearing is like, oh, just reduce your histamine foods.

And that doesn't actually solve the problem. While it can help you, it's not the right. It's a temporary it's a temporary solution. And and the problem with that because so then it's like you've already lost a lot of things. Right.

You know from food intolerances. And then now you're going to pull out even more. And then next thing you know you're eating 3 to 5 foods. And while they're low histamine and it's doing better, you're going to have to start getting a lot more nutrient deficiencies.

And so it may be helpful at first, but, you know, we want to, really expand your diet and expand the foods that you tolerate rather than shrink them. Okay. So, yeah.

So that's a big deal. And the low histamine diet doesn't fix the underlying issue. Like you said, Meg. Okay. So then that brings me to so we know we got her a background information on this patient. Right.

And so we want to know we want to know where can we intervene in her histamine metabolism. So I just wanted to go through this slide real quick. Just as a review.

Probably most of you understand that there's two ways that we break histamine down. One in the GI tract by DHA oh enzyme, which is diamine oxidase, and the other is in the central nervous system.

And everywhere else in the body. It's HMG, which is histamine in methyltransferase. And that's with methylation. And keep in mind she has that for the dreaded six 770 homozygous.

So she's already set up for, for for failure. Right. But we can fix that. And we can't fix the gene. But we can bypass it. Okay. So you know, with the DEA, you know, there's also genetic issues.

You can have a genetic issue and making the enzyme and then the multi-touch diet course, we kind of go into which, gene, polymorphisms are worse, to have on this and then the co-factors for making the yellow is folate, molybdenum and copper and B2.

And so we want to make sure we're not deficient in any of these, because if you're deficient in any of them, you can impair your ability to make the enzyme.

And, you know, you don't want to make a bad situation worse. plus, if you flood an enzyme with its cofactor, where you can speed up the enzyme, you can speed up enzyme, speed very quickly, even if it's even if it's a genetic polymorphism you get flooded with, as with this cofactor, and it may even start working as a normal enzyme.

Okay. And then, we can always take Dio as a supplement there. It's, available. most of the big companies have. So, enzyme, which is a lot of times it's, it's worthwhile to give it a try.

And then, of course, Dio, I mean, dysbiosis can impair Dao metabolism. Okay. So with, with the aging and it has to do with, with methylation. So with methylation there's the three main nutrients B6 12 and folate.

And we're going to go into those with my patient and her organic acids. And then of course the minerals that are involved is molybdenum copper Lydian zinc vitamin A and D can be very helpful.

And then you will also want to, consider the methyl donors. Okay. This is something hardly anybody talks about is what donates the methyl groups. like the Sami in the sa ach ratio, glycine, the chain sarkasi.

Those are markers that you want to look at. And, and I'll show you in this case, presenting and, what, what these, methyl donors was doing. But one thing to if even if you're having CNS symptoms, it doesn't mean that it's not a Dao problem.

Okay. Okay. So let's start out with, looking at molybdenum for her.

Patient history and symptom review

Now, the best way to assess my lived in, is looking at the conventional lab uric acid. I like to see uric acid between about 4.5 to 5.5, and her uric acid was four.

And so molybdenum is a cofactor for mayo to make your acid. So when you start seeing uric acid levels on the low side, that could be a molybdenum deficiency. Okay.

And another thing I want you to consider is molybdenum. and copper are kind of like a teeter totter. They, they bind with each other. Actually, if you're copper toxic, you can take molybdenum to, to, to, to detoxify from copper and vice versa.

You know, they bind together and then they form a sore. You can detoxify from it. But I had this histamine pathway. I know it looks a little bit, complicated, but I'm not going to go through everything.

But you can see the histamine. It's going through this HMG and it makes this methyl histamine and then the C aldehyde which is pretty toxic. That's the same metabolite and alcohol that makes you have that hangover.

And if you can't metabolize it. But look here this enzyme, aldehyde dehydrogenase uses, B3 and molybdenum. Okay. So if you don't have molybdenum, then what's going to happen?

Unless the C down high gets higher. It's getting a have a negative feedback and prevent Dao production okay. But you can see here that you need Sammy.

You need your methyl donors. You need some B three molybdenum. And here it is your in your copper for making DHEA. Now some signs that they may have problems with this these aldehydes and breaking down this, this neurotoxic substances is if they also have new building sensitivity some bipolar gets a Freema.

may all of these things you might want to consider a molybdenum deficiency. And I would always just run a uric acid. It's a very inexpensive test. Okay, so, there's some genetic things that can, you know, impair this this pathway, the MT fa, the aldehyde dehydrogenase, you know, so there's some things we want to look at their methylation status.

you know, we might want to try low histamine and maybe even low or some sulfur, to try some, Doe enzyme and supplement with some of the cofactors, like the iron, copper, molybdenum, vitamin B3.

Now, we always want to look at B2 when it comes to, DHA because B2 is a big, huge cofactor for making bio. And then also is involved in methylation. So you want to look at organic acids as the best way.

You know, there are some companies that will measure just do blood levels of all your B vitamins. But that doesn't

give us a like what does our enzymes need that the the organic acids tell us what our intracellular needs are.

What does the enzymes mean in each of these pathways to help us. So the the fatty acid metabolism in the organic acid that ADP can separate are good indicator one, but they're not specific for B2.

It can also be elevated because of a carnitine deficiency. But when you look at success which is in the the the Krebs cycle, if that's also elevated, then that is pretty much confirmation that there's a B2 issue.

Okay. So that's one another thing. We can focus on that. Then we can, offer to intervene. So the other one is the methyl donors. I know this is a scary diagram okay.

But I just I want to I'll go through it real quick and don't don't get too worked up over it. But notice homocysteine. It's in the middle. You've got two competing pathways.

At the top is our methylation pathway homocysteine. It gets involved with folate and B12 and it makes my thiamin okay. And the Metoyer name is making Sami, which is our methyl donor.

And then that comes back down to homocysteine. And this goes around and around and assists in the Sami goes. And it's the body's major methyl donor. So that we can do methylation and other areas okay.

And then down the homocysteine can also go down and make glue to fire. So what do you think these pathways compete. Which pathway do you think is going to predominate when we have high oxidative stress and free radicals.

It's going to be this glutathione pathway because we have to protect the body from those free radicals. Otherwise we're going to die. Okay. So then what happens is this whole methylation pathway gets shut down, homocysteine gets shunted down, we're making glutamine, and we're also making taurine, okay.

And we make taurine because the red blood cells don't have a mechanism of repair. Taurine is included. Diane is covering them to protect them. And taurine is also going to help us make more bile.

And bile is a good thing to sequester toxins and get it out of our body. Okay. So when we're looking at our organic acid test, and I always like to get organic acids that also include amino acids, you can see that the method Matthias name is low.

So this homocysteine is not coming back to make my thiamin okay. So we're not making methyl groups. And then so this Sam is being stored as Sarkis seen over here.

That's that's the storage form of methyl groups. And then the taurine is really high. So that means that homocysteine is getting funneled down through that pathway.

At the bottom we're making taurine and glutathione. And so now methylation is being impaired. So not only are we B2 deficient and molybdenum deficient, we also don't have any methyl donors okay.

And so let's look at folate. The full light marker is filling up. now Fig. Lou if if it's high you're already 90 days deficient. And so down here at the bottom here you see her Fig.

Lou is elevated. Her methyl melanin which is B12 marker is in normal range. So that's one thing we don't have to worry about. But you can see here like we talked on the last page, the circus scene is very high.

That's your most sensitive marker for methyl donors.

Histamine metabolism and nutrient deficiencies

That one is going to go high before anything else. If you're having problems with, you know, donating methyl

groups. And so now on this page we know that that I like to get homocysteine levels, but I didn't have any homocysteine levels for her.

But it kind of didn't matter. We already knew she was folate deficient. She has more cfAa. And so, and one other thing that she didn't put on her intake form is that she really had a lot of brain fog and depression.

Okay. And that's very, very common. When you're not met, the lighting is it to really affect your mood and be depressed. Now the other marker, the B6, remember I said in the beginning, it's the folate B12 and B6 involved in methylation.

You know, those are those three you don't ever want to be deficient in, especially with Marcel issues. So, that in Europe is the most sensitive and specific marker for B6 deficiency.

And we get that through in the liver, that, that, that, we, we get, we get this marker in the liver through the metabolized form of tryptophan. Now, tryptophan is an amino acid.

It can it's got can go to several pathways. It can go to protein synthesis. It's acted on by in the gut by bacteria to make it in the can and makes the, melatonin and serotonin for us.

Okay. So but most of the tryptophan is going to go through this tiny urine pathway. And if there's a B6 deficiency what's going to happen is zapping urine is going to rise really high.

And that cat can urinate will rise to this strength in York is going to rise first. And I go into the biochemistry of that in my organic acids course.

And then the, the, the main reason for this kind of urine pathway is to make this nicotinic acid, which is B3, okay. And, some of y'all may have heard about long-covid and, the treatment with nicotinic patches, you know, niacin amide is the same thing.

So like with long Covid, the Covid kind of blocks the nicotinic receptors and that's involved in energy pathway. So taking some niacin usually will will alleviate that fatigue from the long Covid.

Okay. So let's look at these organic acids and her kinder and pathway. We can see that the something uric is kind of borderline. But we can also use the liver enzyme alti as a surrogate marker for B b for for b b this B6 deficiency.

and I go into that a little more in the, in the organic acid course. But I always use a cut off at 11. So 11 is quite low and will indicate a B6 deficiency.

So she had a B6 deficiency, but it was not real severe. If it's real severe then kind uric will elevate to. Okay. So now we know we have molybdenum B6, folate, deficient that we can intervene with.

And so you always want to look at what's going on in the gut with the organic acids. And for her, her Robin at all was really high. some organic acid tests have driven a toll, and some have, a rabbit nose.

But driving a charge, the only market that supported by scientific literature as being, specific for Candida. And then the other markers, the citron, malic and tartaric, are associated with yeast, but there's not really any evidence that their products have intestinal growth.

But when these are elevated, you're going to have really problems with absorption on your B vitamins like B1, B2, B6 and in your minerals. Okay. And plus it's going to make alcohol in your gut and make you have a lot of brain fog and almost as if you're drunk.

Okay. So let's move on. remember the other thing she was concerned about her the her her, rotator cuff and, and so we always want to consider, do we have what we need to make collagen and ligaments because she had some collagen and ligament issues with her rotator cuff and, and complaining of, you know, problems and all her joints.

And so let's talk about collagen. Always. I always want to go down to the molecular level of everything. Like how is our body making it right? And is there anything that I can do to support it?

So, you know, college and can get damaged, you know, with, fluoroquinolone antibiotics and Maggie, you've probably heard about, you know, some of the horror stories I've used and things like, Cipro and fluoxetine and some of those fluoroquinolone ones have actually been, recalled from the market, and most of them have a black box warning on it that nobody pays attention to anymore.

so yeah. and also eds people that have that alert then listen that they're gonna you have issues with collagen and ligaments and then, you know, when you have a vitamin C depletion, and that's going to be smokers and people with high oxidative stress and with people that's exposed to mold, you're going to start seeing like a lot of aging in the skin.

And then collagen, collagen problems in the in the joints. So how do we make collagen okay. So these are the chemical reactions. You know one of the things that's in collagen is a lot of proline.

Proline has a five five carbon circle. And you can see right here it's just and it's protein is only in collagen. It's not in other proteins. And then there's a lot of glycine.

And the thing about it is it's ran real. It's wound up really tightly. So, you know, at Christmas time you have those ribbons and you get your scissors and pull it like that, and that makes that little ribbon like that.

That's how collagen is wound around. And if you look down the middle, then the middle, it's wound so tightly that glycine, which is the smallest amino acid, is the only amino acid on the inside.

And you see all these protein, all these proline on the outside. Okay. So we never want to be deficient in glycine, okay? We never want to be deficient in the things we need to make something when we're having a problem.

And vitamin C is required in this, you know, oxidase enzyme for lysine and glycine, and, and, you never and people that have collagen and connective tissue issues, you never want to be deficient in vitamin C because you can't make your collagen without the vitamin C.

And I'm just wanted to show you how much glycine is in, a residue of of of collagen. You see, it's every third residue. So that's something that, you know, I always like to supplement with lysine, glycine and vitamin C with any kind of connective tissue.

tissue disorder or or, or or joint issues. Right. Okay. So then, you know, we want to focus on the limbic response. You know, stress affects every organ in the body.

And 75 to 95% of all doctors are stress related. Can you imagine that? Okay. And then, you know, you add the mica toxin burden on top of that and then you're just a neurotic mess, okay.

Because the amygdala that sits on top of the hyper thalamus, it senses a threat continually. So now you're in a PTSD. So mold toxic mold exposure causes an underlying PTSD, even if you don't have any history of trauma, childhood abuse or stressful marriages.

you know, all kind of crazy traumatic event. You can still have PTSD just from being chronically exposed to mold. Okay. And then what happens is all of this chemistry is constantly secreted histamine epinephrine norepinephrine and dopamine.

And so that's where the limbic retraining comes in. So now we've gone through her case okay. So let's go through really quick and review her deficiencies over here to left.

Remember the low the low uric acid and the K molybdenum deficiency. And that's going to affect the O production. And then she had a beta deficiency because of the elevation of the optic cigaret.

Collagen, connective tissue, and mold stress

And and that's going to affect DNA plus methylation. And then, you know, all the things that are affecting her methylation was the B2, B6, the full length.

And then also the methyl donors, you know, she had low methionine, high saka sing high taurine. So she wa she didn't have the she wasn't able to donate methyl groups to, to do the job.

And then she had the candida overgrowth with the elevation of DRM in at all. Okay. And so then you relayed all that back to her gas, bloating nightly hives, torn ligaments, you know, and her whole list, you can see right here of what's going on with her.

And you can kind of understand what, why she is having some of the issues she's having. Once you're doing a deep dive into all of her testing and deficiencies.

So what my first initial recommendations are, you know, you always want to remove before you do anything. So we want remove the inflammatory stage. I had her follow the mold detox diet, avoid the commercial cooking oils.

We want really good nourishing more, and, you know, increase our protein intake and five servings of vegetables daily and all of that. and stop using fragrances and do some neuroplasticity work, do the brain retraining and then the supplements, of course, trace minerals.

I mean, she was probably deficient in more than one mineral. and electrolytes are really, really good for supporting the adrenals. Replace the B vitamins that she was deficient in oxidants, polyphenols.

We did a gut protocol and then I added some collagen, amino acids. Okay. So then we followed up and basically she said her hives resolved after ten days of the diet and supplements.

Okay. which is pretty remarkable considering she didn't follow any of the Olympic training. I mean, I can only tell people what to do. Yeah, you have to follow it. Right?

And absolutely. And that is an important piece. But look, you're making progress even without it. And that's okay. But you know, and remember she had that homozygous empty heifer.

When I say that I get really high doses of metal folate, I think I gave her like five milligrams of methyl foley and she said her brain fog waking up, hangover resolve within one month.

And she was saying that, you know, I've never had such mental clarity and been able to focus and plan. Usually her mind is like, all scatterbrained all over the place.

she she was just really flabbergasted that she's never had the mental clarity once we gave her that high methyl folate. So we know that her methylation is working because her hives went away in her brains, working. Okay.

And then, you know, her gas and bloating resolved, but it took a little longer. she didn't follow the Olympic training, but her row rotator cuff was still hurting.

And now she has a second shoulder involved. Okay. And so, you know, you can't expect a fix everything, after one session, but we did get quite a bit accomplished.

So in our second session, you know, I really wanted to focus on lowering the cortisol, and I wanted to give her some enzyme therapy, because sometimes if you've got a lot of scar tissue in that collagen area, high dose enzyme therapy and, can and, and and also lowering cortisol because cortisol will also break down collagen.

Okay. so when she came back, she says, you know, she says my house return when I eat grains. And so the solution, I'm like, okay, don't eat grains for now.

Anyway, her showed her rotator cuff. you know, and and her her, all her joints were inflamed and and chronic pain. Her hair was still falling out. She travels a lot.

She has, you know, a wonderful wife, wonderful husband and kids all over. So she goes every month she's going to visit a different kid in another state.

And that really interferes with being compliant with her diet and limbic training. But she's very compliant with her supplements. Okay, so on our follow up, I wanted her to commit to limbic exercises to include our daily.

I mean, you can use vibration foot plates. I have this anxiety release app that you listen with earbuds meditation. There's a whole host of things, and I talk about all of those things that you can do, and there's even, brain retraining programs you can join.

the lady that I met with yesterday, I did they was doing the Gupta and like I said earlier, she had lost all her fear and in less than a month. And, so you have to retrain that brain to completely recover your, your digestion and your immune response.

Okay. and I did give her a high dose protease, because protease can be really good for pain, and inflammation and help break up some of that scar tissue and avoid grains.

so the results and we, you know, we followed up a month later and she said her pain has improved, but she has an injured pessoas it ligament, which I'm not a chiropractor.

So I don't know really what that is, but it has something to do with lifting her leg. She's seeing a chiropractor for that. Her shoulders aren't nearly as bothersome.

and it doesn't hurt all the time anymore. And she didn't really think about it unless she moved, like, in a certain position. And then she gets a pain.

But it wasn't constant anymore. And, and then she mentioned she's like, you know, my lower back improve she and then have knee pain. She never really complained about her lower back in that initial because she has so many things going on.

She didn't even mention her back pain. But then when I talked to her, she's like, you know what? I don't want that nagging lower back is no longer there.

I've had that pain for years. And then she said, one of the most, startling, things that she doesn't have to take. laxatives anymore. And her bowel movements are fully formed and, for the first time in years, and, and but she still is not doing her limping traffic.

And I want to make a comment there because I love whenever that like the side effects are, you know, when you're working on something else on the side effect is a no back pain anymore, full of warm bowel movement.

You know, sometimes those aren't even what people are coming for, but then they clear up when we're doing all this other work and a dang thing to see.

Treatment plan and follow-up results

Yeah. And and then they, they're like, wow, all of these things are working now. And they don't in order and complaining about it in the beginning. But anyway, so that was our, our second follow up. And you know, she was very, very thrilled, you know, that that we were able to get her nightly highs and, and in remission and that her brain fog is completely gone and her digestion is is this is 100% better.

I think it could probably be even better. And I think even a lot of her pain would resolve if she did the limbic training, because histamine is extremely painful.

It lowers the pain threshold. So like everything hurts when you have a lot of histamine and retraining that brain and even even if you just committed to 30 days, you would be surprised how much recovery you again, 30 days of doing an hour a day of brain retraining.

anyway, so, you know, you can learn to interpret organic acids like a pro. I have a course and all of my courses are on Mole Detox diet.com. So if you're a layperson, go into mold detox diet com.

we had the mole, that multi-touch diet course to get started. And some of you that are really geeky and like to dive deep, you can even take the advanced mold immune course.

It's meant for practitioners. But I've had a lot of really, motivated, patients take that course and implement a lot. You can learn a lot about how to modulate the immune system back in the, place.

And even some laypeople take my organic acids course because they get so frustrated that hardly anybody knows how to interpret these expensive organic acid test they have.

And they just love it. And, so you can find those all those courses there and, you can go to my website, even multi-touch dot.com has a link to my website if you want to book a consult with me.

And like I said earlier, you can go to molddetoxdiet.com. I'm going to have a button to join full script and then you can go to the protocols. I'm going to put a copy of my slides in there and and, and the protocol, that protocol is going to be histamine case study day.

And that's the, the name of this patient or the initials of this patient. And there you'll see all of the supplements that we recommended. And you can download a copy of the PDF of these slides for free.

well thank you. This has been so helpful. And, you know, it's it's just hopeful. I think it was so great to see how you were able to help this person.

And, you know, I think some of the time when you're saying even with the mentioning the, the limbic retraining, you can feel like there's no help, you might be suffering this like suffering from this for a long time and start to feel like, can I ever get better?

So to see where you systematically explained how this person made such a big jump in their health and all of the intricate the. You did a good job of showing all the deep dive, like when we're making some of the recommendations behind the scenes, why and what's going on in your body and the reasons we make these recommendations, because we're all connected and it's an intricate system.

So getting everything in place is so important. Oh yeah. And so like I said, 2024 is going to be my year of presenting a case study. So if you go to my website and sign up for my newsletter, I will be every time I do a webinar, I'll be sending out invitations to everybody on my newsletter.

And I'm every time I have a very interesting case, like the lady I just met yesterday. our follow up, who was only eating chicken and potatoes, is now eating more foods.

And, you know, day after doing a deep dive into limbic training that. So what do you do if you can't eat any more foods and you can't take supplements?

People say, can you help me? I can't take any supplements. So there there is help. No matter how you know, if you've lost complete oral tolerance. We have solutions.

There's a lot of things that that we can employ to restore that and to restore our digestion, restore our cognitive function, you know, get rid of the hives.

the fear, the fear behind all of that is, because once that starts happening, I remember when I first got sick with,

with mast cell, and it all came on every day.

It was like, one more thing I couldn't tolerate. And I got really scared. And then I was just in this, like, intense fear. And I looked really neurotic on the outside. yes.

Yeah, yeah. And I know. And you want you. Do you feel that way? And you're it also even, you know, taking a risk. We're not really talking about this, but taking it a step further and really even thinking about relationships and how it affects your relationships with the people around you because you feel that way and they don't understand.

Exactly what I lost all my friends, pretty much. And then, you know, my son thought I needed to be committed because he thought I was crazy. And and, you know, you kind of are a little bit crazy, but you're not.

It's not, like, psychotic. It's more neurotic, you know, like this fear. I mean, I can I can be outside and somebody can be 100 yards from me wearing perfume, and I would react to their perfume, and I would go into this fear study.

And then after I did the limbic retraining and, you know, got my histamine and, you know, all my nutrition, you know, I still have a little reaction to perfume.

Closing remarks and resources

Like, I could go dancing in the and the man would be wearing Cologne and I'm like, oh, he's worn in Cologne. I think I'm getting a little headache and I'll finish the dance and walk off.

And it's not like, oh my God, I can't stand that guy because he's wearing Cologne. I need to like, bash it into him, tell him how he screwed up my whole ear, you know, and not my life.

And he's damaging everybody. And, yeah, that's where I used to go to. And it's just like, thank you for the dance, you know? And I walk off and then the headache goes away.

It's not a catastrophe like, oh my gosh, I'm going to die. And that's what we have to do is like, so what? We have a little reaction. We just have to say it's no big deal. It's no big deal.

And we retrain our brain to it being a no big deal. And it's not going to release 10 to 100 times more histamine and nor epinephrine to all of these things.

That really should be no big deal. Yes. Yeah. Well that's so helpful. I know this resonates with a lot of people. And I thank you so much for joining us today.

Thanks Meg and I really enjoyed it. Thanks for having me on. Thank you. Have a great day everyone.