The Autoimmune Breakthrough: Hidden Triggers & Solutions Transcript

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Introduction and guest background

This is Doctor Terry Wahls, and welcome to another interview with the M. S. and Autoimmune Doctor Talks Summit. Now my next guest is Doctor Yousef Elyaman, who is a board certified internal medicine doc, and he has cross specialization in pediatrics.

He was one of the first IFM certified functional medicine practitioners in the world. He's board certified in integrative medicine to the American Board of Physician Specialties.

He is the medical director of the Guest House, a trauma and addiction recovery center located in Ocala, Florida. He's the founder and medical director of Absolute Health, a primary care practice also located in Ocala that a successful incorporated family integrative and functional medicine into an insurance based model.

Welcome, Doctor Elyaman. I'm so glad that we're together, Doctor Elyaman. So let's begin with what is autoimmunity? Because you people have so much terror when they hear that diagnosis, they have M. S.

or the systemic autoimmune conditions where their brain is being affected. Yeah. So autoimmunity is a condition where the body is attacking itself. So as part of the way our body deals with bacteria or viruses or fungi that try to invade, one of the ways that our body deals with that is it makes these antibodies and these antibodies are these kind of Y-shaped proteins that will go and they will kind of stick to different parts of the body.

I'm sorry, different, pathogens like foreign invaders. And then the immune system can kind of create a response. It can attack it and get rid of it. But what happens is sometimes the programing gets off and our body starts to attack its own self.

And that's that's what autoimmunity is. And so, you know, there's a lot of conversation in the EMS world.

What autoimmunity is and how EBV can trigger it

When that paper came out saying that EBV was the trigger for autoimmunity for EMS. Could you expand on that perhaps a little bit more? Yeah. So I think breaking down auto immunity, I mean, there are hundreds of different autoimmune conditions, like literally any, any tissue of the body can, can get can be affected and can be attacked by itself.

And, and I think I think the the issue is, is that there in order for the body to attack itself, you need what's called you need the perfect storm. So you need your body to, the body has to be in a state that it's more prone to attack itself.

And then there are there are four different things that can it can end up triggering it. So what do I mean by that? Well, you're we have these cells called T regulatory cells or T regs.

And then we also have these cells called T helper 17 cells. And they need to be in balance. And due to our lifestyle and due to our environment and due to many things, the balance can be thrown off.

So what can happen is, is the regulators, the T regs when they go down and those T helper 17 were a form of immunity or immune attack cells. They go up.

Then you're more prone for your body to attack itself. What you're talking about with EBV is one of the ways that the body can attack itself. And that is or one of the triggers.

And that's what we call molecular mimicry. And molecular mimicry is when there is a region on a virus, on a food, on something that we're exposed to that looks very similar to a region on our own tissue, on our own body.

In the case of Ms., on the myelin sheath. So it looks similar to a myelin sheath and the body will create those antibodies to attack EBV or whatever the triggering thing is, or a triggering, whatever triggered it.

And then it turns around and as, as, as it's making antibodies to fight EBV, it'll turn around and attack the myelin sheath. Or if it's if it's thyroid, it'll attack the thyroid.

If it's like a Hashimoto's, depending on what autoimmune it is. But malignant molecular mimicry is just kind of one of the ways that the body can start getting tricked and attacking itself, you know, and I'm thinking about the mimicry between, the protein in dairy and the protein in wheat.

But could you talk a little bit about that? Yeah. So what's supposed to happen is our body is supposed to be able to, to really digest these proteins down to the amino acid.

And what can happen is, is that if if we don't have good gut health, some people are going to be more prone to this than others, then what can happen is, is that we aren't if we can't fully digest or break those proteins down.

And usually with things like dairy and gluten, we would need help from good bacteria. And if we don't have the right amount of good bacteria, and then if we have a something called something called leaky gut or increased intestinal permeability, where the lining of our intestines, instead of being tight, where it where it doesn't allow these large particles to leak into the bloodstream, instead of it being tight will end up, it will open up a little bit.

Gut permeability, gluten, dairy, and lectin-driven immune reactions

And now these partially digested proteins that you can find in gluten and dairy and other things like corn and whatnot, but they leak into the bloodstream and the body sees it and says, oh, no, this is a foreign invader.

I got to do something and it starts to attack it. And then when it starts to attack it, some of those amino acid complexes or some of those with some of those areas at that are on the dairy or on the gluten, will look similar to the myelin sheath and the nervous system.

So the body will attack it and then turn around and attack our own myelin sheath. And then the more they take in the gluten in dairy, the more or dairy, the more those antibodies increase, the more the body's attacked, which stresses the system out, which causes more leaky gut.

You kind of end up with this vicious cycle where it just gets worse and worse and worse. So the gluten in dairy is an issue for some people with, is it everyone or is it some people?

It's some people. It's it's it's actually it's pretty interesting. This is maybe going off topic a little bit, but but you know, the there's this big craze with medication like semaglutide which, which are peptides stopped for just a moment.

Yeah. What is that compound that you just mentioned? What's the brand name? Because most of our listeners won't know what you're talking about. Like Ozempic.

Like, I'm so excited for that. For losing some weight. Say exactly. They're excited for losing some weight. But then. But then they're also there are they're also, there may be long term effects that we, we're really not sure about like but but but yes, they'll use it for losing weight.

They use it for diabetes. But these if you look at what these peptides are, they're these amino acid complexes. They have these they they actually create a biological effect.

They create a effect on our body, on our system. And now you think about it. If you have this leaky gut or increase in Tesla permeability, you have these amino acid complexes that can go into the bloodstream and may actually have some negative effects on the body.

You can have these things called lipopolysaccharide aids, which are which come from gram negative bacteria that

leak in. And they can affect and hurt the nervous system.

And then on top of that, you can have these antibodies where the body's attacking it and then turning around and attacking yourself. So it it's not. So I think kind of from a root cause functional medicine point of view, we don't look and say, oh, if you have mass then that means it's a gluten or B that means it's dairy.

I think that we what we try to do is we just try to distill it down to what could cause autoimmunity. And then there's multiple things that could lead to mass, multiple things that can cause to the, the or trigger these autoimmune conditions.

And when when we're looking at those antibodies in the body being attacked, we're looking so far downstream. So we've mentioned to potential triggers gluten in dairy.

Are there other triggers that people may not be aware of that we should draw to their attention? Yeah. So back staying on the molecular mimicry, there are a lot of times what we'll do is we'll put people on like a modified elimination diet or a elimination food plan.

And what we do is we say we remove the most bothersome foods. The foods that are most not most commonly would cause some sort of an immune reaction. So there's things like corn genetically modified being worse and that's really what is rampant out there.

There's things like there's things like soy and many times things like eggs because it's, it also is can turn into those immune complexes. But you know, what comes with those foods kind of brings us to one of the other causes of auto immunity.

Because a lot of these foods, the way that they're made and they're processed, they first of all, they have the genetic material that is added to them to help them, to help them kind of fight against pesticides.

And they add these things called lectins to them. And lectins can also be one of the drivers of autoimmunity. So lectins again for the listeners that's a protein that a sugar side chain has been added.

And plants have been doing this for hundreds of millions of years to protect themselves against insects. There are some lectins in animal products as well.

They're in eggs, being very prominent, but they can also be present in, shellfish and occasionally, other meat products as well. But it's a much bigger problem in the plant world for us. Right.

And this is the thing. So so apart from what we talked about, molecular mimic, mimicry, anything that changes the way your body looks, anything that makes your body look foreign now sets your body up to attacking it.

Right. It doesn't know any better. It's like you imagine an intruder goes into your house with a mask and your spouse sees an intruder. They attack it or they run.

Right now imagine you dress up in a mask and you show up to surprise your husband or wife in the middle of the night, and they attack you. That's kind of your fault because you change the way you look.

So with this hole. So anything that changes the way the body looks can set us up for for autoimmunity. Because the body's like this isn't it's it's kind of trained to not attack itself or it's program to not attack itself.

So the lectin example is, is that you have these lectins and now you have this increase in intestinal permeability. And there's these amino acid complexes will leak into the bloodstream.

And then they can sometimes stick on different sugars. And one of the examples that we talk about is going to be the rheumatoid arthritis which is another autoimmune condition.

And if you look at what causes one of the big things we see positive and rheumatoid arthritis, it's called a rheumatoid factor. But what most people don't know is what is rheumatoid factor.

Rheumatoid factor is a IgG antibody attacking and IgG antibody. So the but you have one antibody attacking another antibody. And and that creates rheumatoid factor.

So then what is one of the reasons that that may happen. Well one of the things that we think is that there is a lectin found in wheat that will bind to something called glucosamine.

Toxins, smoking, and phase-two detox support

And what happens is, is that when you look at some people that have rheumatoid arthritis, their IgG antibody, instead of having galactose at the end of that eye, it actually has glucosamine.

So now that lectin may go in bind to the glucosamine. Now this complex looks foreign. And then the body starts attacking it. And and things like emfs and things like thyroid diseases and things like that and other autoimmune conditions usually it's like it's the whole decreasing lectin thing is like you want to go, you want to go all the way, do everything that you can.

You eliminate lectins as well. I know it's a bit controversial, but that's kind of the theory behind the lectins and how these lectins could potentially fuel autoimmunity.

Kind of makes the tissue look foreign. You know, certainly in my clinical practice, when I was at the V. A. and we had the Therapeutic lifestyle clinic, we talked about the elimination diet and the people that were most responsive were my rheumatoid arthritis patients.

And I tell them, you know, this is going to be a much harder diet. And so some folks were miserable enough. They've been trying the conventional drugs for their RA.

And they said, you know what, I am ready to do the elimination diet. And they had great success. And of course, I had some folks who are like, man, that that diets way too hard.

So we would come back to like, okay, so what could you do? It would negotiate the level of diet change that they in their family could manage. So again, to the listeners, you don't have to leap into the elimination diet if you're hearing this like, oh my God, that is too hard.

There's nothing I can eat. I have a negotiation with your family. And so we'll do a thought experiment. So you've got somebody coming in and in your heart, do you like okay, a doctor was you really should do the elimination diet.

And my family says, no, no, no, that's too hard. We did something a little bit easier. What is the easier step that you would offer your patient who's feeling overwhelmed? It's elimination.

So depending I think in the beginning I would just kind of plant the seed and say, and I love your approach where where you, where you kind of focus on things, healing foods.

Because if you think about it, if one of the reasons that these lectins can leak into the bloodstream is that you have this inflammation and this increased intestinal permeability, so you have this leakiness, then getting the right probiotic and anti-inflammatory foods may decrease that enough to where you're not getting that leakage isn't as much.

And I think that I think you're right. Like you're the the role model and our teacher in this that that let's work on those healing foods that may heal the guy for them and plant the seed that listen just because you're going on an elimination diet now or an autoimmune paleo diet now, doesn't mean this is what you're going to do forever.

You kind of if you're ready to do everything, we give this a try. We give this a real go, a real try, see how you're

doing. And then we kind of take it from there.

Correct? Correct. You know, and it really depends on how severe the person is, what level of urgency that they feel. Do we go all in on the elimination diet or do we do to this really much more basic health supportive approach?

And then how long would you anticipate, you know, just adding the really good foods, the probiotics and perhaps what you might take up 1 or 2 key problematic foods.

What might those be? I think gluten and dairy. I think those are. And if you can stay away from actually that brings us to our potential. Second reason that the body could look foreign.

So one reason the body can look foreign is going to be these lectins that are leaking in and binding and making it look foreign. But another thing is toxins.

Because toxins change the way the body looks. And if and when you have this non-GMO, non-organic vegetables, the reason they're adding these lectins, it partially is so that they can kind of withstand the chemicals, which means that they're going to be putting chemicals in them.

And those chemicals then go into our system and they can start changing the way our tissue look and what our tissue looks different than the body's like.

I don't know what this is. Let me attack it. And that's where go ahead. Well, it brings up the smoking, air pollution and wildfires that I know many people are many more are exposed to.

Insulin resistance, sugar damage, and brain effects

And we know that, that particulate air pollution and smoking will change some of our cell structures, which is why there's a higher rate of rheumatoid arthritis, higher rate of that mass, higher rate of autoimmunity when you smoke and when you have a poor air quality because of industrialization or air pollution.

Right. And smoking. So back to so smoking, I mean, absolutely, we want people to stop smoking because that worsens that increases the risk of not only cancer, but autoimmunity and so many other things that really stresses the system.

And one of the things it does is in order for our body to get rid of these toxins, we go through something called phase one, which is you kind of activate the toxin and then you go and a lot of these toxins, they don't float well in our blood.

They bind to our fat and just stay there and slowly leak into our system. So we have to go to phase two. And phase two is where the toxin is made water soluble so that it floats in your blood and so that you can pee it out or you can poop it out.

It goes through the bile. If people are like, I'm not giving up smoking, which I don't endorse, but you meet people where they're at. We really try to give people things that help that phase two, because that phase one is turning on the toxin.

It has to go through that phase two, or it can really hurt people. I mean, it can hurt people either way, but you kind of work on that balance, and that's where you the cruciferous vegetables or you just take a look at the the nine servings, the 6 to 9 servings that this doctor called Doctor Walls will ask you to go on and just start eating those foods, because they will help you with that.

Absolutely, absolutely. It's really, really, very, very helpful. So so we talked about like, talked about lectins, talked about toxins. Are there other triggers that we should be mentioning here. Yes.

So one of the biggest drivers of disease of chronic disease is something called insulin resistance and high blood

sugar. And what happens is, is that is if you look at when we follow diabetics, who are the extreme case of this sugar dysregulation, we look at a number called an A1, C hemoglobin and an A1 C hemoglobin is the protein found in your red blood cells whose job is to carry oxygen.

But what happens is, is that we every every maybe 3 to 4 months, our body makes new red blood cells. So because of that, the the the higher your blood sugar levels have been, the higher chance of that hemoglobin are, the higher amount of hemoglobin which is found in those red blood cells can caramelize where we call it glycation.

And that caramelization happens. And if we get these diabetics to eat better and exercise and put them on medication, and that number that hemoglobin A1, C starts going to going less and less, because which means the caramelization is decreasing.

So the reason I'm saying all of this is, is that our red blood cells are not the only tissue that are going to caramelize. Caramelization will happen when you are eating too much sugars.

Caramelization is going to happen to all the different tissue of your body, and that caramelization changes the way your body looks. And if you change the way your body looks, look in your body do it can attack it.

So so so this sugar dysregulation is a huge driver of autoimmunity as well. And as you know doctor was it's not just wine. Oh my God it's just the gluten.

And that's it. It's there's this there's this perfect storm that's happening. So when you have, a high carbohydrate diet and listeners, the average American has, I believe it's 325g of carbohydrates a day.

And, if you're on a mediterranean diet, that's about 125g of carbohydrates a day. If you're on, my version of the paleo diet, it's about 80g. If you're on a ketogenic diet, it's 30 to 50g.

Yeah. What kind of ketogenic diet run? So if someone is eating the standard American diet at 325g of carbs, what's going to be happening to this caramelization process?

What will the hemoglobin at once see? What is that likely to be? So the first step that happens is as they're eating more and more carbs, the body isn't able to handle it.

So the when the body will start to do is it releases this insulin in order to bring the glucose into the into the cells. But with time it's just too much.

And and the you end up getting what we call insulin resistant where you need more and more insulin to do the same job. When that happens, you really push to get to the body to be coming to getting fatty liver, and it pushes the body to decrease nitric oxide.

It pushes the body to to cause to push towards cardiovascular disease and cerebrovascular disease. So that's all happening. And then eventually kind of can get to this point where now that A1 C starts going higher and higher, so it'll go from like 4.5 up to five, up to five.

Once it's up to 5.7, we call it prediabetes. Most conventional practitioners are going to say, oh, you're just sugars a little high. We're like functional medicine.

We're like, oh no, look at this. Caramelization is happening. It depending on your genes, it could go to autoimmunity or it could go to Alzheimer's, or it could go to this or that.

And we're kind of catching them early. And then it can. And then by the time that the conventional doctor will pay attention is usually when it's at about 6.5.

By then we've already had like three heart attacks as their functional medicine practitioner watching it go up. And hopefully we've gotten them to reverse it by then and then and then it can go up.

I mean, 12, 13, 14, it can go higher and higher, and the higher that is, the more chance that the rest of your body is caramelizing as well. And then there's another thing that happens.

As that's happening, our body forms something called and this is kind of a A1. C is a form of it. But other advanced glycosylation end products and these advanced glycosylation and products also can trigger and push autoimmunity.

And you know, I'm thinking about the, damage in my brain. We've known the type three diabetes is cognitive decline Alzheimer's from these, high sugars.

Now, if we put that in the world of mice, the longer we have, multiple sclerosis, the more like we are to have, brain fog, cognitive decline, becomes harder and harder to maintain our work life.

Can you tie that into this hemoglobin A1, c and, you know, all the listeners, I want you to maintain your mental clarity, maintain your work life as long as possible.

So how does the insulin resistance up into that? Yeah. So the brain needs sugar. It needs sugar to work. And even when people are on like a keto diet, a very extreme kind of let's go really, really low carb.

Your body still has sugar and it's still going to make sugar. And with this insulin, the first step when you're overloading the body with, with, with sugar and with carbohydrates, you start to get what's called insulin resistant and insulin resistance.

Now, that means that it's harder to shuttle the sugar into certain tissue. Fat is one of them, but the brain is the other. So now the brain gets less and less of sugar so it can work as well, but also there's more of a chance of the sugar to the areas that it needs.

But then there's more of a chance of that caramelization happening as the sugar starts rising and rising and rising. So it's kind of like a, a couple of things that are happening.

So again, for our listeners who are hopefully fired up, like, okay, I don't want that insulin resistance to be happening. What what should our listeners be doing to reduce that insulin resistance?

So like kind of like you mentioned, you want to significantly decrease the amount of of of impact carbs and an impact carb is where wheat it's it's a carbohydrate that has an impact on your blood sugar.

Recovery stories and closing remarks

Total carbohydrates have a combination between things that sugar that affects the blood sugar, and then sugar that really feeds the bacteria in our gut with our fiber.

Fiber. So you take the total carbohydrates, you subtract the fiber. And that gives you the impact carbs. And if they can, they want to start decreasing the amount of impact of carbs that they're taking in.

They also want to improve insulin sensitivity by doing things like exercising. And they can combine their food with more fiber and with protein to slow the rise, to slow how fast the sugar hits into the system.

Because another reason that they might be getting brain fog, too, is that you get this huge sugar load like somebody goes and gets like a Slurpee star.

His ancestors never had Slurpees, right? They take that Slurpee more sugar than humans probably ever had it in the past. All at once. The body's like, oh, no, I got to do something about this sugar that just shot up really fast.

So it starts releasing insulin and it can overshoot. It goes too high when it goes to to to the insulin goes too high. Then your sugar crashes, which affects the brain too.

And then and then now the body then has to start producing sugar. And then you kind of get caught up in that vicious cycle. So if they cut down the sugar load, if they decrease their impact, carbs, if they, they can add fiber to it, if they can add stay away from the chemical processed foods, because that actually can make that make the process worse and really add up their protein.

Okay. So listeners, I think what we just heard is cut out the sugar sweetened beverages greatly reduce if you can eliminate or reduce the white flour products.

Starchy vegetables are okay, non-starchy vegetables are okay. Berries are okay. Proteins okay. And so if you could lean more into your starchy vegetables away from the white flour based cereals, breads, pastas, I think that would be a really helpful first step.

So as we are getting ready to wind down our interview, do you have a, a positive story of recovery for all of our listeners? If somebody who had M. S. or a autoimmune disease with brain symptoms that you were able to help them reverse that damage.

Yes. So the first well, I'll give one with Ms.. And one with that, or one that's, that's autoimmunity. And then the second one is Ms.. So when I first started years ago, I would I used to make fun of functional medicine.

I was the biggest critic. That's how I was trained. Functional medicine is woowoo. It's I didn't realize it was evidence based. And what now? Not so many times in my life, I put my foot in my mouth, but I somehow ended up I was I was frustrated trying to find ways of helping patients.

I came, I started looking more into the functional medicine. It started to make sense. And I went to a workshop and I came back and I had a patient that had lupus and and she continued to she was getting worse.

She was on medication. And I asked her, I said, look, I just I was at this workshop, I heard about this thing called a paleo diet. You eat like a stone.

Each person would, are you willing to change your diet? She goes, I'm willing to do anything. So she ends up going and looking it up herself because I wasn't fully I didn't know all the details of it yet.

I just said, look, I heard about this thing. And she had irritable bowel. She had lupus gut. But that's one of the things we kind of learned with functional medicine.

Anyway, long story short, she comes by. She's better her guts better her. Her joint pains better. So I'm like, I guess I'm good at convincing people of things.

She had her leave come back. She's still better. So finally, I'm like, all right, let's check. We checked her, Anna. Which is that marker? One of the markers you can look at that can indicate lupus.

It doesn't always indicate lupus, but it can. And it was gone. And that's what made me dive in with functional medicine. Think early on, I went through the institute, started going through the Institute for Functional Medicine, and I came across your protocol and and I had a patient that came in.

He was insulin resistant. He was. And this is years ago now. I wish, dude, if I if I knew it now, if I knew what I knew now, I probably would help him even more.

But he had insulin resistance, checked his vitamin D level because low vitamin D is going to throw off that balance that t raggedy T 17. And it was low.

So I got him on vitamin D, I got him I tried to get him exercising. I got him on an elimination diet and his symptoms just all went away. And it was pretty amazing.

It was pretty amazing. And then I, I would any time I would get have a patient with me, I would tell them have them

watch your Ted talk. And I noticed a lot of times when they're on their diet, when they're exercising, they would may get a little, they they do better.

And then when they get off of it, they get worse. But I did notice this, that by getting those vitamin D levels up and keeping them up, they actually could eat more junk without having problems.

That's one of the things I picked up. But yeah, those are those are two stories that come to mind. But but now it's like, I think with functional medicine, autoimmunity finds you, right?

Yes, yes. Okay. Well, we could keep going, but I think we should wrap this up. How do people find you, doctor? Elyaman? Dr. Elyaman on social media, Dr.

E l y a m a n. Okay. Excellent. Thank you so very much. My pleasure. Thank you.