Introduction and Guest Background

Welcome to another wonderful interview for the MS and Autoimmune Summit. I'm Doctor Troy Wahls, your host, and today's guest is Doctor Rani Banik. She is a board certified neuro ophthalmologist.

So for all of us with her MS.. That's a big deal. We need r no ophthalmologist to follow along her optic neuritis. Now she completed MD at Brown University, a residency at UC Irvine, and fellowship at the Wilmer Eye Institute at Johns Hopkins.

She runs a private practice in New York City and is an associate professor of ophthalmology at Mount Sinai. She's also a surgery group, a certified integrative and functional medicine.

She focuses on the root cause of why we get our eye diseases so, so important. And she uses strategies similar to how I think based on nutrition, botanicals and lifestyle.

And of course, targeted supplements. Her expertise has been featured in Good Morning America, New York Times, Today Online, CBS, TV news, NBC, ABC, Fox.

She's a really big deal. She's the author of two bestselling books, Beyond Carrots The Best Foods for Eye Health. I'm going to look forward to hearing about that.

And doctor, what is plant based visionary kitchen. So welcome doctor biotic. I'm so glad to have you. Thank you so much, doctor. Well, it's really an honor to be here.

And is there anything that I missed in your bio that you'd like to highlight? Professionally, I think you covered it all. I have a nice kind of balance between my private practice and teaching, which is something I absolutely love. And as part of my academic responsibilities, I also do run some clinical trials.

So maybe maybe that's the only other thing that wasn't in the bio. Well, excellent. But I'm just so glad that you are here. Now let's get down to some of our questions. So let's talk about the eyes in the brain and how are they connected.

And with that. How much of my brain is devoted to the visual system? Yeah, those are some excellent questions to start out with. So I'll just start by saying that the eye is a direct extension of the brain.

If you think back to embryology, the eye kind of emerges as an optic cup from the from the preliminary what becomes the the brain and the spinal cord.

And so it's directly connected. And then on the flip side, so the eye is part of the central nervous system. On the flip side, as you were mentioning, a lot of our brains pathways are devoted to our vision.

And it's estimated that at least 50% of our brains neuronal pathways are in some way related to vision, whether it's how we see form or movement or color, or how we're reading or coordinating eye hand coordination balance, that all links back to vision.

It's a bidirectional relationship. Well, so, so important. So I'm thinking that would mean whatever foods are good for my eyeballs are probably good for the rest of my brain.

Eyes, Brain, and Macular Carotenoids

Yes. And I say that all the time. What you're eating for your eyes or is going to benefit the rest of your body,

especially your brain. But yes, and there's some specific nutrients.

If you like. We can we can talk about that later. But specific nutrients that benefit both organs that may not benefit other parts of the body as much.

Let's talk about those specific nutrients. So I know there's the ones that I'm tuned into, but you probably have even greater clarity than I have about key nutrients for eyeballs. Yes.

So there's actually three nutrients that are really important there in a class that we call macular carotenoids. And these are carotenoids basically cousins to vitamin A and beta carotene.

But they are specific to the eyes in the brain. They have names and they're kind of long difficult to remember. But I'll mention them. The three macular carotenoids are lutein and xanthan and measles. Yes.

Anthon again tongue twisters. But you don't need to know them all. But but why are they so important for our eye as well? First of all, our bodies can't make these nutrients, so we need to get them externally, ideally from diet.

If you're not getting enough from diet, yes, you can take a supplement, but these nutrients, they get absorbed through the bloodstream and get selectively deposited into the back of the eyes in a region called the macula.

And that's why they're called macular carotenoids. And what they do is they act as very powerful antioxidants. They neutralize free radicals in the energy production pathway that because the eye is very metabolically active, there's always free radicals being generated.

And also these macular carotenoids, they act as our natural filters for various wavelengths of light, for example, UV light coming into the eyes can potentially cause damage.

And these macular carotenoids basically neutralize those. Those UV rays also blue light. A lot of people are concerned about blue light coming from screens.

And these macular CRI noise also protect our eyes against against all wavelengths of light. Basically that could be harmful. So I'm thinking that these particular pigments, are sort of like a sunscreen for the macula.

Would that be fair? Yes. And I often describe it to my patients as these are your internal sunglasses and your internal blue blockers. So if you're getting enough of these, you don't necessarily need to wear sunglasses all the time, though I do recommend sun protection for other reasons, but you don't necessarily need to get those blue blocking glasses.

You know, a lot of people invest in those and there's really no proof that they work. But there is adequate scientific evidence that these macular carotenoids, if you're getting sufficient concentrations of them in your retina, that they will protect you against screen time and eyestrain, etc..

Okay, so we got people fired up about these three key ingredients. And of course, I know you and I both feel strongly that food is the way to really take care of your eyes.

So are there food sources for those three nutrients you've just mentioned? Yes, and there are some wonderful food sources. I would say the highest concentrations are found in green leafy vegetables.

So kale is number one. Kale is king when it comes to concentrations of lutein and zeaxanthin, but then also spinach, arugula, collard greens, dandelion greens, whatever leafy greens you enjoy, it will probably have high levels of these nutrients.

Now let's say you don't. You're not a fan of leafy greens. Let's say you don't like the taste, or perhaps you have an oxalate sensitivity. There are other foods that will provide you with these nutrients.

One other example is egg yolk. So that beautiful orange yellow color of the egg is because of these pigments lutein and zeaxanthin, really high concentrations.

So please don't throw away the yolk. Make sure you're eating the yolk if you're having eggs. Also, there are some fruits also that are rich in these nutrients.

Food Sources for Eye Health

For example, typically the orangish yellow types of fruits like peaches, nectarines, mangoes, and then there are other cruciferous vegetables that also have these nutrients, like broccoli, for example, has some lesser concentration than kale.

But some lutein and zeaxanthin. So there's lots of ways you can get these nutrients. And this is what I talk about in my book. It's not just carrots your eyes need.

You need to eat this wide variety of colorful fruits and veggies to give your eyes the nutrients they need. And does it matter cooked or off? So that's a great question.

I would say if you're having it raw, you need to have a lot more. So for example, you need more volume if you're having a cooked, as long as you're not overcooking it, you're not blanching the food when you're cooking it.

And make sure you're cooking it with some fat so it gets absorbed better. These are fat soluble vitamins, so whatever your choice is, raw or cooked cooked, you can eat less because this more concentrated.

But certainly again don't overcook please. Okay. Now back to multiple sclerosis. So how many people with M. S have had optic neuritis or some evidence of damage in their visual system?

Quite a few actually. The studies estimate that during one's lifetime, anyone with a diagnosis of multiple sclerosis will probably develop optic neuritis.

About 50% of people. So about half the people patients with multiple sclerosis will experience optic neuritis. Now, oftentimes as an ophthalmologist, I see this every week in my practice and in the clinics.

Optic neuritis is oftentimes the very first symptom of a demyelinating disease. Many people, especially young people, they get their first attack and then down the road they may get diagnosed.

But but oftentimes it is almost the harbinger of demyelination, demyelinating disease. So before you've seen the physician and you're up some allergist, you wake up, you know it's days that I've had optic neuritis as my first symptoms.

What does that feel like for that person? What what are they experiencing? One of the very first symptoms and I don't know if you experienced this doctor walls is pain.

Pain kind of deep within the eye socket. And pain that worsens when you look in different directions. So for example, a lot of patients will say, I feel okay when I'm looking straight ahead.

When I look to the right or to the left, there is this tugging sensation like something's tight and it's it's, nagging at me in the back of my eye socket.

So oftentimes pain will be the very first symptom. Sometimes people feel like, oh, it's nothing. It's just my eyes. A little dry or irritated, or maybe I'm getting a headache or migraine, but it's the unique characteristic of the pain that worsens with eye movement.

But then in addition to that, usually people will notice a blur in their vision, where it's usually one eye. Sometimes both eyes can get affected, but it's quite rare.

Usually one eye is affected at a time. People will notice kind of a smudge or a blur, and it could be anywhere in their vision. It could be in the center part of their vision.

It could be in the periphery, but something that doesn't feel right. And many people, if they wear glasses or contacts, will think, my glasses are not clean.

I need to clean my glasses or my contacts or, you know, they're bothering me. I need to switch out my contacts. But if you do that and it's still blurry and you're having pain, definitely go get attention from an eye care provider, preferably an ophthalmologist.

And if you can see a neuro ophthalmologist because they can really help to make, you know, to make the diagnosis and get you on the right track. And the other symptom that you hadn't mentioned that I did notice is the color perception was different between my left and my right eye, that things were not quite as bright.

And there were a couple colors that were clearly off in my left eye. And I was up there skiing.

MS, Optic Neuritis, and Vision Symptoms

I was doing cross-country skiing and, a really brisk club. And I happened to close one eye and then the other, like, off. The colors are very different.

Yeah. And, well, I mentioned that, to a, casual friend said you're going to have, M. S. someday. And then my father died unexpectedly the next morning.

And so, of course, that conversation about you're going to have M. S. someday was forgotten until, you know, many years later, when, in fact, I was diagnosed with multiple sclerosis.

And I remember that conversation like, oh, yes, I did have, someone tell me that this was going to, be at risk, you know, and in retrospect, I actually I'm glad I didn't know at the time because that was before I had been kids that I might have decided, to not do that as a single parent.

So fortunately, it's still all worked out. Now, we've talked about eating leafy greens. So important, for eye health for the retina. Is that also helpful for the lens and preventing cataracts?

So that's a great question. There have been many studies looking at dietary interventions for cataracts, not just the macular carotenoids, but also antioxidants like vitamin C and vitamin E and vitamin A.

Now the jury's still out on that. So there's there's a lot of controversy with respect to that. And and as I'm sure you know, you can guess, it's very hard to do these nutritional studies because they have to be long term studies.

And a lot of the time the nutritional studies go back to what we call food frequency questionnaires. So people are trying to remember what they ate. And sometimes in our recalls, not great in terms of our diet was we're really keeping detailed log.

So the nutritional, you know, evidence supporting it is not as robust as what we would like. But despite that, I still recommend those nutrients, for lens health, although for corneal health, for retina health, for optic nerve health.

So when you're eating for your eyes, it's not that you're eating for a specific part of your eye. You're eating for the entire organ. And the organ is is complex.

It's, you know, it's small, but it's very, very complex. It has 40 different working parts. It has over 200 cell types. So really. Yeah, it's it's really important to just get that diversity of nutrients.

And yes, the antioxidants are absolutely essential. As we're chatting, I'm thinking that probably another really huge component is to cut out the sugar in white flour that all this ultra processed food is robbing our eyes of the key

nutrients that they need to be enjoying good health.

You know, our children in particular, 68% of their calories coming from sugar and white flour at the adults, I think we're at 59% of our calories coming from sugar in white flour.

So replacing that with these radical things known as vegetables, protein sources, meat, fish or vegetarian legumes, and grain, I just incredibly important that we do that and that we talk to our children about why we are doing this.

Now, I think your points are so important. So anyone who is concerned about their eye health, it's so important to cut out those ultra processed foods and simple carbohydrates for two reasons.

I mean, with respect to the I, number one, we know that ultra processed foods increase one's risk of macular degeneration, which is one of the leading neurodegenerative conditions in the world.

You know, a lot of people think of neurodegenerative disease. They think of Alzheimer's, Parkinson's. But in fact, because the eye is a direct extension of the brain, macular degeneration is the number one most common neurodegenerative condition in the world.

And again, there are studies showing that having a diet rich in ultra processed foods will increase one's risk, I think at least two fold, maybe three fold.

The other reason, you know, that type of diet that you mentioned is to cut out those. You know, that white sugar, white bread, et cetera. Is because those simple carbs will have a high glycemic index and they will ultimately potentially lead to pre-diabetes or even diabetes.

And it is so rampant in our society and diabetes can really do a number on our eyes. I mean, I have seen, unfortunately over my career, so many people unnecessarily losing their vision from diabetic retinopathy when it could have been prevented, especially younger people.

Now we're seeing more and more younger people getting diabetes at an earlier age. Even children. And really, you know, starting young and, and trying to swap out those foods for those radical fruits and veggies you mentioned is so, so important.

Yeah.

Diet, Processed Foods, and Eye Disease Risk

You know, I hear from parents, moms and dads who have their autoimmune disease feeling like I can't make my children eat this way because I'm robbing them.

And we work really hard to tell them, no, what you're doing is saving your children's future. So can you talk a little bit about how you had this conversation with your patients to have how they then feed their children?

Absolutely. Well, there's there's a few aspects of this. Number one is in most households the parents are buying the food, and if they're buying that type of food, that's unhealthy.

Then of course the children will have access and they will eat it. So the simplest thing is to not purchase it. Now, of course, then you can control what's happening in your home.

You can't necessarily control what's happening outside of the home, in school, or at friends houses, etc. but at least you can control that. So number one, don't buy it.

Number two, model for your children what it means to have healthy eating behaviors. Meaning, you know, I always love that. The plate analogy. I know that U. S dietary guidelines have changed, but you know the plate where you have a certain portion changer plate be fruits and veggies.

You eat that first, you get your protein and then lastly you eat the carbohydrates. So if you if you try to model like that, then your children will pick up and and again it's it's a long, long term strategy is not going to happen overnight.

And there may be resistance. But I think the more you, you emphasize the fact it will sink in. Absolutely. You know, I think it's really important that we talk to our children, you know, young kids.

I have a grandson. I'm very excited about that. And we talk about the super power of vegetables and the super power of the sauerkraut. And this little guy, he's he's two.

He likes his red sauerkraut. So explaining why fruits and vegetables are so good for us and that they may have a strong taste because they have superpowers, you know, tell that story again and again so they understand the magic within those vegetables that you're eating.

Yes. Now add one more thing you mentioned, like strong taste. I know that taste can be a concern for a lot of people, especially when the alternative is, you know, ultra processed foods that are loaded up with unhealthy fats and sugars.

I read somewhere that our taste buds regenerate every two weeks. And so if you get used to a certain taste, you have to give it time for it to become palatable.

And so, you know, with children, especially if they eat something once, they don't like it. I think you have to keep reintroducing it and keep offering it to them.

As as you mentioned, with positive affirmations, I think that's also really important. Absolutely. In the other tip that I explained, the greens that can feel bitter if you add fat and then a acid such as vinegar or a citrus brings the page down that will resolve the bitterness.

We had a little, process that we use in our clinics. I will ask if you did something similar. The bay was wonderful. It had a rowing kitchen. And so we're able to in my lifestyle clinic, pass around, kale leaf, tear off a bit, eat.

It's like, oh, my God, that's bitter. It's herbal. Was no way my family would eat that. Then we would mix it with green grapes, olive oil, ice into a smoothie, a little bit of lime juice, and then pass that around there like we're actually that is pretty delicious.

And then the next thing we asked is, you know, we sought out if people were eating bacon or not, if they, if everybody ate bacon, we fry that bacon to the desired level, then took it out, chopped it up, put kale in, usually about 60s so it wilts, and then add the chopped bacon back, pass it around like, well, actually that is pretty delicious.

And we said, you know, that's the basic recipe. Vegetables cooked just briefly 1 to 2 minutes. Plenty of fat, healthy fat. And then if its stuff is just a little bit better, add a little vinegar or citrus, bring the pitch down and the veterans would come back for the next appointment.

And they're like, you're right, that basic recipe is delicious. You know, the pros where we went low fat, we made our vegetables better. And so the vegetable consumption went way down.

That's amazing. Unfortunately I haven't had an opportunity to do, an experiment like that. I work in an I hospital and so we don't necessarily have all of the resources.

You don't get to have a traveling kitchen. Yes. No, we don't we don't have that, unfortunately. Well, I hope somehow you can advocate for that, because I think there's something really magical when you could do a food demonstration and transform the taste from bitter terrible.

There's no way my family's going to eat it to. Actually, it does taste pretty good. In. Yes, they would eat that.

Family Nutrition and Making Vegetables Taste Better

So it again, for everyone who's listening, I want you to know that cooked properly food that you think is bitter and terrible can really be transformed without sugar into something that's quite delicious.

Absolutely. And I love the demonstration idea. So I actually have done this before when I give talks about ocular nutrition to my colleagues who are ophthalmologists or optometrists.

I've actually brought in, you know, a little mini blender and made a green smoothie and had them taste it. And they say, it's not so bad. I think I can do this.

So I think also changing the mindset of practitioners because a lot of practitioners may not be open to it. And if they understand the benefits and they've experienced the benefits, and that can be tasty, they're much more likely to recommend it to their patients as well.

You know, and I think that is really important that we begin training our medical students, our nursing students, that nutrition is the cornerstone of health, and we have to get them on board with eating healthy for themselves so they can make it through medical school, nursing school and training.

And then they'll be much more likely to include that in their own clinical practice. Absolutely. I know some medical schools now are instituting teaching kitchens, which is wonderful.

So exciting. Yeah. I don't think the University of Iowa is yet, but, you know, I keep working on them. Well, we'll make progress. Now, what are other lifestyle components, for example, are there you know, I do physical exercise routine.

Should I be having I exercise routine. You know, that's a great question. When it comes to an I exercise routine. There's a lot out there on the internet.

If you're on social media, you may see people advocating for certain types of exercises, etc. they may help with comfort level and reducing eyestrain.

But long term, there's no proof that they're actually going to support your eyes and protect you against certain diseases down the road. So I would say normally if you're up on a screen, definitely take some breaks.

So the one exercise I would recommend is something simple which is just blinking just to blink. And I'll share some interesting statistics with your doctor.

Wahls. Normally most people blink about 15 to 20 times per minute. When we're on a screen, our blink rate goes down to about 3 to 5 times per minute. So it's a 75% decrease in our blink rate.

And what's going to happen? Your eyes are going to dry out. You're going to feel strained. You're going to feel fatigue. So simply by blinking and and doing more mindful blinks.

Forceful blinks. So not just a little blink, but really kind of squeezing a little bit every few times an hour that will get your tears pumping and flowing.

And it also gives your eyes a break from looking at the screen. So maybe look away from this screen. We we have a rule in ophthalmology that we call the 2020.

We usually think of as perfect vision. But this is a little bit different. This rule basically means every 20 minutes take a 22nd break and look at something in the distance 20ft away, to give your eyes a break from the screen.

Relax your eyes, look in the distance, and maybe when you're doing that, I'll also add in. Do your blinks. Do your forceful blinks during that time. So that is the one exercise that I really strongly advocate for.

Other than that, you know, I would say talk to your eye care provider and see if there's specific exercises that may benefit your specific condition. Okay.

Are there other lifestyle components that I should be thinking about? Well, yes. What other lifestyle things should we be doing. So I would say two things.

One, especially when it comes to autoimmune conditions like M. S and optic neuritis, the two things, and this is oh, this all falls under self-care is proper sleep and trying to modulate your stress levels.

Now, almost always when someone comes in with an attack of optic neuritis or any other autoimmune disease that's flared up now, by the way, the eyes are very susceptible to inflammation and autoimmune conditions.

Screen Habits, Blinking, Sleep, and Stress

So we can pick up so many autoimmune conditions based off of an eye exam like lupus, rheumatoid arthritis, other types of optic neuritis and MSD. Mo gad for example.

So going back to what I was saying earlier, whenever someone comes in with an attack or flare up of their eye autoimmune condition, I always ask my patients, tell me what's going on in your life.

Tell me what's happening. And almost inevitably they will say, Doctor Banach, I am stressed. I'm not sleeping well. Things are out of control. I feel like I'm losing control of my life.

And that's when things flare up. Almost always. And I'll share with you. I had one patient who she was diagnosed with neuro neuro myelitis. Optica spectrum disorder, NMO, ASD and she'd had seven episodes of optic nerve itis one eye, the other eye, both eyes just back and forth, back and forth over and over again.

And every time I asked her, tell me what's going on? It almost every single time. It was related to stress in her household. She had some interactions.

She had a fight with someone, a flare, you know, just a lot of arguments. And inevitably she would have an attack. So she recognized that finally, only that her being in this situation was causing her flare ups.

And once she tried to, implement self relaxation techniques to modulate her stress or just to simply remove herself from a situation that was escalating to an argument, she finally was able to gain control of her episodes and decrease her flare ups.

So I think it's really important for people to do a little detective work in their lives, find out what may be contributing and try to address that. Then sleep is also so important.

I know Doctor Wahls, your you always talk about this as well, this aspect of our health when we sleep, it allows our bodies to recharge and repair and the same thing with our eyes when we're sleeping.

We're basically cutting off any light stimulus to our eyes for at least hopefully 7 to 9 hours during the day. And that's incredibly restorative for your vision is to get healthy sleep.

You know, I want to reinforce these comments. It is true for your eyes. It's true for your brain. I talked to people time and time again that pay attention to your life when you have a flare of symptoms, whether it is EMS related, your, eye related disease, when you had a flare of symptoms, think back to the previous 24 to 72 hours and have a theory about what may have contributed in the environment.

Was it a food choice, a fight, the, wildfires in your area, toxin exposures. And what can you do to reduce exposures to that? You know, get a better air cleaner, get talk therapy, family therapy with, you know, think about what what you could be doing and likewise, if you have a period where like, man, this is the best I have felt in a long time, really a long time.

Now look back to the previous week. What were you doing that you have a theory as to what were the elements of that week that may have contributed, why you had such a great week and could you have more of that so that you were away from home?

You had great sleep, you were camping, you had the best sleep ever. Like, okay, that was a big clue that maybe time in nature is good for you, that better sleep is good for you.

And can you do more of that? The more we are willing to be investigators of our good days, in our not so good days, we can gradually develop a better self-care routine that will improve our eye health, improve our health overall.

So yes, these are.

Hydration, Resources, and Closing Remarks

I wanted to add to your point about those good days and share some insights I've gotten from my patients. So I do ask them, you know, when they're in a good stretch, how how if things change, what have you done differently?

And two things stand out. Number one, people, most of my patients will say I'm eating better. So not eating out as much, not eating fried foods, processed foods, etc.

eating more fresh, healthy fruits and veggies. That's the first thing they tell me. The second thing they tell me is that I'm hydrating more. And I do think of water as a nutrient.

And when we're hydrating, you know, just so many benefits for our bodies, we're helping to detoxify and supporting blood flow and oxygenation. So by doing those simple things, making healthy dietary choices and also hydrating better, I think a lot of people can truly benefit.

In addition to the other aspects you mentioned Doctor Wahls. Well, Doctor Bannock, this has been really a wonderful conversation. First, tell our listeners again the books that you have.

So I'm going to recommend those very much. And then, where can they learn more about the wonderful work that you were doing? Absolutely. So, I websites the best way to find out more about me, doctor Ronnie bannock.com.

And you can find my two books there Beyond Carrots and Doctor Ronnie's plant based, kitchen. And also I do a lot on my website. I publish a lot of blogs so you can learn a lot.

I have a podcast as well. I have a summit and, and I have an Instagram page so you can find me at all those locations. And what is your handle for your Instagram?

Doctor dot, Ronnie Bannock, doctor Dot, Ronnie Bannock, and as doctor Dr.. Yes. Dr.. Yes. Great. Thank you so much. This has been wonderful and everyone do check out those books.

Thank you doctor Wells.