



Quercetin for Seasonal Allergy Relief

With Dr. John Gildea and Dr. Martin Katz

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David Roberts (00:10):

Hey everybody. It's David Roberts and you're listening to the Mara Labs podcast. And today, Dr. John Gildea and Dr. Martin Katz and I will be talking about quercetin, which is the good molecule that is in apple skins. It's in onion skins, which we tend to throw away. And so we're just going to dive in. It's a very powerful antihistamine. And so as the dogwoods are blossoming here in Virginia and the red buds and the pollen is beginning to come out, and so are the seasonal allergies. And so Dr. Katz, have you started seeing many seasonal allergies come into your clinic yet, and if not, when do those typically come?

Martin Katz (00:54):

No, we're definitely inundated. You just look outside and start seeing the cars covered and the trees starting to bloom. It's that time of year in the clinic when you're just inundated with these people coming in with sinusitis, rhinosinusitis, allergic rhinitis. And unfortunately they look very similar and they look similar to patients, and you start getting a better history and they're like, this happens every time this year.

Martin Katz (01:17):

And is that because they're getting infected with a virus or virus growing bacteria and doctors are just giving them antibiotics all the time, which further complicates everything as we know from the microbiome standpoint, or do they have allergies? And so you have to really sit and sort of tease that out. And a lot of times you realize they have allergies and it can look very similar. So we are definitely seeing it and makes sense because we're seeing it in the trees and the pollen.

David Roberts (01:45):

Indeed. And have you had any of your patients on our form of quercetin called QuercElite for their allergies?

Martin Katz (01:54):

Yeah, I have actually and one of my coworkers takes it and she raves about it. So seems like it's doing what it's purported to do and we're very happy with that.

David Roberts (02:05):

So let's talk about what it actually does. So quercetin, there's literature on quercetin and antihistamine response. What's the, John, can you dive in with the pathways in science?

John Gildea (02:17):

At least for me, the most obvious connection with quercetin is the mast cell degranulation stabilization. There's a lot of connection between your immune inflammation, allergies and mast cells on how they coordinately work to accomplish a task.

John Gildea (02:36):

So most people know, if you've ever had an allergy, you know what it feels like, or if you're [inaudible 00:02:42] in the area you have. So most people have a pretty good idea of what an allergic reaction feels like. And so if that mast cell is unstable, which is, there's an actual mast cell syndrome where it's destabilized, and you have that kind of reaction going on all the time. And quercetin has been shown

very clearly to work on making that more stable. So maybe people don't know this, but in mast cells, the histamine that is part of that pathway is stored in granular form in the mast cell.

John Gildea (03:15):

And then you get fusion with the cell surface in order to dump those histamines into the surrounding area. So quercetin's known to stabilize that so it's a less trigger happy setup. So you're less likely to dump your histamine into that area.

John Gildea (03:31):

And probably Martin has a lot more to say about just histamine in general. For people that have that sensitivity, you have to also worry about histamine that's in food to try and reduce that. Those are generally fermented products, classic set of foods that have histamine in it.

John Gildea (03:49):

So if a person has that syndrome, there's a particular way that you can help them. But for everybody that has minor allergies, even if you're taking some antihistamines, stabilizing your mast cells will work along with that as well. So that was my case, where I always had breakthrough spring allergies until I started taking quercetin, a much more bioavailable version of quercetin. And then the antihistamine started working where I wasn't had having any breakthroughs. And so now I don't even really think of myself as having spring allergies anymore.

David Roberts (04:25):

Because you take the quercetin.

John Gildea (04:27):

Yeah.

David Roberts (04:30):

Bioavailable. So what is the bioavailability of most quercetin products that you buy over the counter?

John Gildea (04:34):

Yeah, quercetin is really low. I'm not sure how low. It's around the same as berberine and curcumin in the one, maybe slightly over 1%.

David Roberts (04:46):

I've heard 5%. [crosstalk 00:04:48].

John Gildea (04:48):

That sounds high.

Martin Katz (04:48):

I think it also depends on what sugar it's bound to. So depending what food you're eating, I think, believe onions, apples are more bioavailable than say tea, even though I love tea during the winter. And

you will get some quercetin, probably not quite the same amount. So it also depends on how it's available or what sugar it's bound to.

David Roberts (05:09):

I know, John, you got me into saving the onion skins off of onions. And so I have mass quantities of bags of onion skins to throw in soups and stuff. What is the sugar that it's bound into in that molecule, in that form?

John Gildea (05:24):

Yeah. So if you take skins of onions and just boil it and then keep it warm for 24 hours, you convert almost all of the care to quercetin to quercetin glycoside. So a glucose molecule. And it's more cell penetrating and it's different than a lot of the flavonoids in that it works as a conjugate when it's getting glucuronidated, the quercetin still functions. So it's different than a lot of the molecules where as soon as it starts going down the pathway of metabolism to getting rid of it, this one still works as it's being sent down that pathway.

David Roberts (06:02):

Yeah. And Martin, and then you can jump in too, John. What do you recommend as far as daily dose of quercetin for folks who are actively struggling with allergies?

Martin Katz (06:13):

Yeah. And again, I'm going to backtrack just a tiny bit. John said something really interesting about quercetin and stabilizing. And I think quercetin works in numerous ways. And one of the ways obviously we already talked about was that mast cell stabilization, but it also seems to have an important effect on the gut and these lipopolysaccharides coming from bacteria.

Martin Katz (06:39):

And so again, you can't underestimate the importance of the health, not only of your gut lining, but what's on the other side of that. The microbiome, the bacteria that are there, the mucosal layer. And if you can decrease these trigger happy mast cells, and certainly inflammation's only going to increase how trigger happy they are. So if you look at these mast cell activating disorders or foods that create this, a lot of them are fairly healthy foods and you're going, why is that?

Martin Katz (07:08):

And I would imagine that again, just the current environment that we're living in, this monocultured decreased microbiome, increased inflammation environment is leading to this. So again, going even further back is what does health look like? And you know I love to talk about these types of things. But again, when we look at the hygiene hypothesis and living in these four walls and using a lot of cleaners, the health of the microbiome in the nasal passages, the health of the nasal mucosa, the health of the cells that are creating that, really need a lot of help.

Martin Katz (07:47):

And so again, make sure that your symptoms are controlled, get outside, get in a different environment, make sure you're using cleaners that are not damaging to that microbiome or that nasal mucosa.

Because I have patients who come and say, "I haven't been out this spring because I'm really worried," or even spring, summer, fall because they're worried about having an allergic reaction.

Martin Katz (08:09):

And I understand that it's not very pleasant, but unfortunately in the long run they're not helping themselves or their microbiome. So make sure again that you're getting different environments, not just the same park. And again, I think I've talked about this in the past, don't go running on the side of a major highway or even a major road. Stay on the trails or stay in parks. Certainly not where they spray. Make sure that nasal mucosa, nasal microbiome's getting healthier.

Martin Katz (08:34):

Again, we talked about variety of foods and keeping them in your mouth and making sure that your gums are really, healthy, chewing that fiber and then not using mouthwashes because we have a really good microbiome in the back of our nasopharynx that should likely help us, certainly from a nitric oxide perspective, but certainly from a mast cell stabilizing perspective as well.

David Roberts (08:53):

So you wouldn't recommend Listerine?

Martin Katz (08:56):

Yeah. I think in my clinic I'm known as the anti...

David Roberts (08:58):

Anti Listerine.

Martin Katz (08:59):

Yeah.

David Roberts (09:00):

Okay.

Martin Katz (09:01):

Or really just any antibacterial mouthwash.

David Roberts (09:03):

So how many capsules, what dosage do you recommend if somebody's mildly struggling, if somebody's really struggling?

Martin Katz (09:11):

Yeah. I mean, I think I start everybody on like two capsules and then, based on what's... of our product. And then based on what's happening, I may increase that. I ask them to take it at night. The last thing I want people to have is allergies that are interfering with their sleep. So waking up with itchy eyes, itchy nose, sneezing, that irritated itch or scratch of the back of your throat you just can't really reach, watery eyes, watery nose. And so taking two capsules at night, and then if they need more during the day, I'll

ask them to do that. Fortunately, we don't have fatigue that's associated with our quercetin, which is great.

David Roberts (09:44):

John, you take two capsules to get your benefit.

John Gildea (09:48):

Yeah. Sometimes I front end load it if I'm dumb enough to not start my antihistamines early enough. I know when my allergies start almost to the day and I'll try and start it 10 days beforehand. But if I get into my allergies, it's harder to stop. So sometimes I'll front end load to get rid of the actual allergies along with taking antihistamines and then a normal dose will keep it bay.

Martin Katz (10:17):

That's a great point, John. Thank you. Yeah.

John Gildea (10:19):

Yeah. I have personal experience in this case.

Martin Katz (10:20):

Yeah. So do I actually, and tons of experience with my patients and I often tell them please, don't wait until the symptoms start certainly front load before those symptoms starts. Because it's much, much harder to control once the symptoms have started. Those mast cells are very sensitive.

John Gildea (10:36):

Yeah. I have a fun story. I'll say it super quickly. But when I found out I had allergies, I was working in a biotech company where the head of the lab was a real experienced immunologist. And I walked in from after lunch and was kind of sneezing uncontrollably and walked in past his office, and he ran and grabbed me. And him being the director of the lab, he grabbed me and said, "What have you been doing? I need you to go right now, back into the lab. And I want you to sit in the walk-in freezer and I'm going to be back there to talk to you in five minutes."

John Gildea (11:20):

And I was like, what in the world? What did I do? I thought I did something really bad. I go back there and he comes back in five minutes and he goes, "I actually saw edema forming on your face." Where I was getting enough of a histamine reaction, I was getting swelling in my face. It was very serious.

John Gildea (11:40):

And he said, "The combination of me scaring the tar out of you got epinephrine, which is a antihistamine, and then mast cell degranulation is temperature dependent." So he put me in a walk-in refrigerator and I was sitting there shivering in my shorts by the time he got back there. And I was stabilized. And he says, "I'm really sorry I scared you like that, but I was really scared. You were going down that road."

Martin Katz (12:05):

Angioedema.

David Roberts (12:06):

Wow. Wow, John.

John Gildea (12:08):

Yeah. It was scary.

Martin Katz (12:09):

Yeah, better get a little norepinephrine from that than a shot. That's a horrible feeling. I mean, neither's great. But Lord, that's a terrible feeling.

John Gildea (12:17):

Yeah. Yeah. I did not enjoy that. And any time this comes up, I always think about, oh, epinephrine.

Martin Katz (12:24):

That's why you're shaking over there.

John Gildea (12:24):

I remember that feels like.

David Roberts (12:26):

Yeah. Wow.

John Gildea (12:27):

Really scared by a boss you really looked up to. He was a great researcher.

David Roberts (12:31):

Any other allergy tips outside of taking QuercElite early and often?

Martin Katz (12:39):

I mean, again, just what I was saying. Please get out, please get into different environments. And for those people out there who don't enjoy having the symptoms and want to stay inside in a controlled environment, I get it. But you really need to control your symptoms and then slowly increase your exposure. There's enough studies out there looking at folks who go into farms and start mucking stalls, horse stalls or even pig stalls, and decreasing their allergies based on a healthier microbiome and a healthier mucosa. So it's not the end of the world. We can always get back to health, which is again what we're trying to do here.

John Gildea (13:19):

Yeah. I love that. I think then in sort of the nutraceutical left hand of the great lifestyle aspect that Martin's always great about bringing up is there are some things that work with quercetin. It's known to be a zinc ionophore. So sometimes doing zinc.

John Gildea (13:38):

And then another one that works with it is vitamin C. So they can work together to get a stronger reaction. So if you think about, you should think about those just in general health as to have zinc and vitamin C, but if specifically, you're fighting infections, those would be one and two past quercetin. And I'm not sure how you feel about the omega threes or how, how to get your omega threes, and maybe that's age dependent as well. But fish oil or sardines or your flax, depending on your age, your ability to desaturate and all that stuff.

Martin Katz (14:22):

Yeah. I mean, that's a whole podcast in and of itself. But yeah, that would be based on certainly age. So DHA is probably higher in young kids. EPA's higher in adults, certainly those at risk for cardiovascular disease. And then maybe again, as you're getting older with the risk of dementia and neurodegenerative, maybe going back to a DHA, but there you can sort of equalize out DHA. EPA. And then there's always the concern of how you get DHA to EPA.

John Gildea (14:52):

That's true.

Martin Katz (14:53):

So lots to uncover there.

John Gildea (14:55):

But I just like that idea there, where you started out with lifestyle and then right away brought in your anti-inflammatory lifestyle and diet. And then when you go for specifics on a particular struggle, there are a number of factors that work along with it. And that's a lot of how you think about health in general, is very holistic and personalized. So would love to just spin that into a general discussion on a topic. Although we're just talking about quercetin, it's pretty clear that that fits in the middle of a whole lifestyle.

Martin Katz (15:37):

Yeah. And again, so much more even to say about quercetin, but yeah. I mean the future of medicine is likely personalized, whether it's going to be affordable or not is a whole nother question, but that's the future.

John Gildea (15:50):

Maybe we can tee up the conversation about senolytics for another time, because that's sort of off on another pretty big tangent.

David Roberts (16:00):

Yeah. Quercetin is a significant anti-senolytic. Is that right?

Martin Katz (16:05):

Mm-hmm (affirmative).

John Gildea (16:05):

So senolytic kills senescent cells.

David Roberts (16:07):

Senolytic. Yeah. It kills those bad boys.

Martin Katz (16:11):

Anti-senescent senolytic.

David Roberts (16:13):

Anti-senescent. Yes. Well, thank you gentlemen. This has been a good dive into allergy season and quercetin, so you've been listening to the Mara Labs podcast and we'll be back next week with another episode. Thanks for listening.

Martin Katz (16:31):

Thanks for taking care of your human.

John Gildea (16:33):

All right, bye.

David Roberts (16:36):

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