The Anti-Inflammatory Power of Pectasol Against Galectin-3 Transcript

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Introduction to Galectin-3 and Modified Citrus Pectin

Well hello everybody. Another fantastic episode of Reversing Heart Disease Summit, and I get to do this one with my joyful and wonderful co-host, Doctor Rita Murray.

Good day, Doctor Rita Murray. Good day. It's always a good day when we get to talk about fun stuff. I agree, and it turns out we learned that we share a lot in common in our practices.

Although you're in Texas, but you reach all over the world, and I'm in Detroit and Florida, and I reach all over the world, but we find out that we both are fans of a, knowledge base called galectin three and an approach Kamada fide, such as packed in or packed a cell.

And it's probably a topic everybody listening right now should know more about. So let's dive into it. And I'm going to talk a little bit about why, as a cardiologist, galectin three came on my radar screen.

And then we can talk about, using practice all in your practice. And I think everybody will be richer and smarter for it. So, galectin galectin three does suggest there's more than one galectin, but galectin three is by far the most powerful molecule, and it is actually electing matches.

Which is why it is spelled and pronounced the way it is. Some lectins are harmful. Galectin three may be harmful as we'll talk about. Some lectins are actually beneficial.

Mistletoe. The wonderful Christmas green is used in cancer therapy. It's also elect. And so we have to be specific. But galectin three a word that most people haven't heard a lot or at all, is a very powerful inflammatory regulatory molecule.

Some people call it the conduct of inflammation. And again, inflammation is not a bad word. You cut your, knee, you get a bug bite, gets red again swollen against hot.

And a couple days later it's nearly all gone. Are gone. That's inflammation helping us. But Doctor Murray and I both focus on chronic inflammation where it's turned on and not turned off, usually driven by lifestyle, and things like, poor quality diet or obesity or sleep apnea or dental health or, chronic inflammation, chronic infections, Lyme mold.

So chronic inflammation is not good. And galectin three is this conductor that sort of orchestrates the whole cascade that ends up in harmful, final events.

And what are some of those harmful final events?

How Galectin-3 Drives Inflammation and Fibrosis

Well, they include both the damage and inflammation can cause in blood vessels and tissues in the heart muscle itself. But the most scary one is actually the term fibrosis.

Fibrosis is scar tissue. And, you know, if you've ever skinned your knee bad, that, you know, in 25, 45 years later, you can still see a scar. I got one right there.

I think I was about five years old. Scar tissue is permanent, and if you're getting fibrosis in the muscle of your heart or other important organs like the kidneys, it's permanent.

And that's why galectin three really drives. So we do not want galectin three to be, abundant and access it does some other things due to the our system, it can increase the thickness of blood vessels, particularly the aorta.

And thick blood vessels are stiff blood vessels and stiff blood vessels don't respond youthfully, and they drive blood pressure up and they drive more organ damage.

And I think people will be interested. And a couple other things that we've learned in the science of galectin three that, it's terrible, but it actually increases fat storage, galectin three.

So it promotes obesity. And we know how much that is a enormous problem in both our practices and across the Western world. It promotes fatty liver disease.

And lots and lots of people have heard the term nonalcoholic fatty liver disease or hepatic ptosis. But with people getting CT scans and ultrasounds, they so commonly say nowadays, fatty liver diseases, recognized.

And the imaging or blood testing galectin three fuels insulin resistance and insulin resistance. Certainly creates, blood vessel pathology and heart pathology.

And finally, and certainly very importantly, chronic kidney disease. Galectin three can scar the kidneys. So I think everybody by now, after just a short introduction, will say, how do we know if we have a high galectin three in our blood in our tissues, and what do we do about it?

And there has been a blood test for at least a decade. We're targeting Quest Lab, LabCorp, which can measure your blood level of galectin three. I've ordered it thousands of times at my clinic, and the way I get the results back, it's marked in a normal range, in an intermediate range or in a markedly elevated range.

And where it really is most markedly elevated is people with congestive heart failure. Very serious cardiac problem, where fibrosis, may be the reason we have a weak heart and we can't return that heart to normal strength in all cases.

In some cases we can, using integrative approaches, but not in everybody. So, in heart patients drawing galectin three as a blood test, a relatively inexpensive blood test in a widely available blood test may be very important.

And then to shift gears and get it over to my, wonderful co-host, actor Reed Murray. A very, very bright scientist physician named Doctor Isaac Ellis has been working for decades and identifying if there's a natural inhibitor of galectin three, how good that would be to find something that prevents all of this list and cascade this orchestration of chronic inflammation and fibrosis.

And it turns out, when you throw your orange peel away or you throw your grapefruit peel away, the inside has that white pithy material, and that's called citrus pectin.

And not too many people eat it, but it turns out it's rich in chemicals. And one of the chemicals is called, packed us all as it's commercially known.

But if you just were to say I'm going to start scraping the inside of my grapefruit and get that white stuff out and throw it in my smoothie, and I'll block my galectin three fibrosis pathway, it doesn't work because, citrus pectin is actually a large molecule that does not get absorbed from the GI tract with any success.

So Doctor Labs and others, and now a company called Echo and Eugenics have for years been taking that pectin, but they modify it and they modify it in a way that makes it smaller and absorbable.

So instead of being 100 to 300 kilo, Dalton sets a number. It's less than 15 kilo Dalton. So bottom line is it's a powder or a capsule that has the inside of those citrus pectin, but it's modified for absorb ability.

Testing Galectin-3 and Clinical Relevance

It's a complex fiber. It's a low molecular weight citrus pectin, and it's easily absorbed by the GI tract. And it is a galectin blocker. So if your galectin wants to attach to a cell wall, there would be a fat cell or a hard sell or a cancer

cell, because this pathway is very active in cancer.

And you want to block it, you can block it with modified citrus pectin. MCP it's often abbreviated. And you can start to drive inflammation down and you can drive.

Many people have heard the term cytokine storm, which we heard a lot of during the peak of Covid down. And you can drive the development of biofilms, which trap bacteria and hide them down.

And you have an impact in sepsis, in fibrosis, in cancer and in heart disease, even in auto immune disease. And I'll just say one last thing and then hand it over to the clinical aspects.

There's that uniquely modified citrus pectin available as pect us all from echo eugenics likes to trap heavy metals. It likes to trap arsenic, it likes to trap lead.

It likes to trap cadmium, and it traps it and it removes it from the body. So there is a chelating aspect to, taking us all, and we know we're all exposed to mercury, lead, arsenic, cadmium, and the whole range mercury and the rest.

And they're toxic, and they cause their own set of diseases and inflammation and brain and may promote to, serious cardiovascular disease. So that's a little background.

I heard about practice all and modified citrus pectin probably about a dozen years ago. I have it available in my clinic. I have recommend it to patients, particularly those that have that high galectin three blood level.

But others have taken that just for wellness. Understanding how important a molecule this is. And that's, you know, kind of, leading up to doctor reading memory, when did you first hear of practice as an option?

Modified citrus pectin as a supplement that is widely available and can be used in your clinic? Absolutely. So, probably my guess, probably around 12 years ago.

Modified Citrus Pectin as a Galectin-3 Blocker

And I first heard of it through Doctor Alyse Elias. And, it was for heavy metals, because we feel I saw a lot of people with heavy metal build up and a lot of people with the mouths full of mercury and eating commercial foods and eating a lot of meat, animal products, when where the lead accumulates in the bones.

And then they're making bone broth, which is a popular thing these days. But a lot of bone broth is contaminated with lead because the lead accumulates in the bones and it's extracted.

There have been numerous studies that show that. So I started using it for that. But before I get into how I clinically use it, I would love to ask you a question.

Can I ask you a question? Why not? We're here to have a conversation. Okay, good. How does the galectin build up? Like we know when people have elevated LPA, right, that there's a genetic component and it's not as much controlled by lifestyle.

Whereas we know that when people have high oxidized LDL or LDL or other inflammatory markers, CRP, homocysteine, that there are diets and lifestyle factors that contribute to that.

So how does it is it just random? Is it genetic, or are there particular lifestyle factors that can lead to the buildup of galectin three? Yeah, well, as far as I have read, in the past, galectin does have a gene that allows it to be produced.

And, you know, we'd rather the gene be relatively inactive. It's the classic epigenome, the environment that that gene is exposed to, oral health, weight, infection, particularly the most severe form of infection called sepsis, male, arteries that are on fire because of advanced atherosclerosis.

And I'll, if I remember, I think it's chromosome 14 that has it, but it's there to be made, you know, and it's that process. It's in our DNA and then has to be transcribed by the messenger RNA, then go over through the cell, since it's a protein to be made, in the endoplasmic reticulum.

I feel proud of my medical school education coming up this pathway, but it's just a matter of, what might be signaling that for it to be made in cells. And, you know, we know that it's a biomarker.

It's a cardiac biomarker. A lot of people have heard of high sensitivity reactive protein, as a, important cardiac biomarker of inflammation. But people need to hear about and ask, ask your cardiologists or figure out how to order it on your own through some of the online labs.

Yeah, I get a galectin three level and it can be made in tissues throughout the body. I would predict that probably the liver is one of the more important, since the liver make so many of the other inflammatory biomarkers, the high sensitivity C-reactive protein, the IL six.

But exactly how that gene can attack sepsis can detect, you know, the, inflammation of obesity, is amazing. So we're not actually shutting off the production of galectin three at this point.

We're blocking its activity, you know? So further, I'm sure a lot of research down the road. There are other actually ways that are being created to filter galectin three out of the body with, almost dialysis, like a protein.

But for now, we know we can block it from impacting, if cholesterol were in your blood or lipoproteins anywhere in your blood. But it never connected to the cell wall to create a plaque.

It wouldn't be much of a problem. And, packed us all. Or modified citrus pectin has that ability to block, you know, the galectin three from attaching to so many different, compounds in the body to cause harm and particularly scarring.

Great. Well, thank you. I didn't know if there was a particular food or nutrient deficiency or anything that have been studied yet, because that's always a great place to start.

Right? But that's always going to be a shout out to a cheeseburger, fries in a mall that says, no, I don't know that for sure. Right? Right. Bubbling that for everything.

So in terms of how so I first heard about it then, and I was seeing people with, with, heavy metals. And the problem is that a lot of the, the mechanisms for removing heavy metals from the body are either very invasive, very expensive, and create a lot of side, side effects, so to speak, that I didn't like.

So, so we have question, you know, people go in, I'd kill Asian. It's super expensive, super time consuming. Not doesn't always work. Is what I've seen.

And then the other piece was the, like the oral, EDTA and, rectal. And I was finding that when people do that, they go into a horrible detox mode when they're trying to remove things.

And there's very specific protocols for using those because it also yanks out along with the heavy metals. It'll yank out good metals like zinc and magnesium, etc..

So I was looking for something. And what I find with, modified citrus pectin, it will take a little longer to go down the heavy metal things. If we go back and retest the hair, retest the blood, retest the urine.

The main mechanisms for testing for metals that it took a little longer, but it was much more gentle. Right. And people could use it and then gradually ramp up to full dose, use it over the course of six months, go back and retest and see where they're at, and then continue or, you know, continue on a maintenance level because most people are not exposed anymore.

Right? If you're no longer exposed to the offending substance, you just yank it out and then you're done. Right? But in the case of heavy metals, we don't just yank it out and then we're done.

So there's, there's a use for an ongoing use, not necessarily the same strategy. So that's basically how I use it in practice. It's also good for yanking out toxins.

Right. So it's a good key later as you said. And it will latch on to the heavy metals and pull them out of the system. But it also does that with some of the toxin.

Heavy Metal Detox and Practical Dosing

So if people are exposed, I've worked with people who had worked in various chemical factory type situations, build up of a lot of toxins in their system, and it helps to bring those out of the system.

It needs to be taken on an empty stomach in order to do that, because otherwise it will latch on to whatever you're taking. So if you pop in a whole bunch of supplements and take zinc and magnesium and all these other things and take your modified citrus pectin along with it, you're basically flushing out your good metals that you're trying to build up.

So I have them take it. Usually I have people take it at bedtime. I tend to like the powdered form just so people don't have to take a handful of pills.

But some people don't like taking powders, so they take the pills. It's innocuous. It doesn't taste bad, by any stretch of the imagination. So it's easy to mix in water and take it dull.

If you're taking it at bedtime and you take magnesium at bedtime, don't take it with the magnesium. Leave a good half hour to an hour in between those things, and preferably get the magnesium in and then take the pack to subarctic.

Packed us all, and then take the magnesium an hour later. Those are, you know, great, great reminders. I remembered an article that I read a couple of years ago was called, from A to Z.

The role of galectin three. And just to give people an idea, I found it. It's a published medical research article, but it literally goes A to Z. There's a chart, a being, asthma, atherosclerosis.

These are diseases where, and galectin three is causing, potentially, you know, fibrosis and damage and targets for modified citrus pectin. So a was asthma atherosclerosis and atopic dermatitis B was that it's blood test, C was cancer and COPD D was W is diabetes can be an inflammatory disease.

He was endometriosis F was fibrosis. It causes G was just dryness H was heart disease I was interstitial lung disease a bad condition. Juvenile arthritis K was kidney diseases L was liver fibrosis and was mortality that people that are, predicted to die have a higher galectin three level and was nonalcoholic fatty liver.

Oh was obesity, P was pneumonia, and psoriasis. There you go. Psoriasis patients perked up just now. Q was an unusual one called Q fever. R was rheumatoid arthritis, S was sepsis a very, very serious condition?

T was it's a targeted therapy in so many areas. U was urinary tract infections were abundant. And galectin three V was venous thrombosis, W was wound healing, X was what's called the X syndrome of the heart.

Kind of microvascular angina, Y was yeast infections and Z was zoster pain. So I tell you with everybody listening to this summit, somebody has one of those eight through Z conditions most likely, and everybody should be worried about, you know, atherosclerosis and so there are some trials, you know, to go beyond your and my clinical experience that this stuff works.

But most of the clinical trials so far are still in the animal model world. There are data that if you, create a situation

of congestive heart failure in animal models, and you throw in modified citrus pectin into the chow, there's a rat, you actually inhibit the damage.

You inhibit the fibrosis. Because that's how it works. It's, great to know that. And, the the growing role in stroke, the growing role in actually atherosclerosis, that, there is an animal model showing that you can prevent, you know, this number one killer of men and women by blocking the action of, galectin three.

Even in obesity, there are rat data that adding, practice, modified introspect into the chow of rats promotes better, weight control, which, you know, we're going to our moon gyros and arrows.

Zenpix. But maybe we had a first consider this pathway. So it just goes on and on and on. And I think I heard you say, do you prefer the powder over the capsules?

Yes I do, I think that, I work with a lot of people who have digestive impairment, and so they don't always break down the capsules and they end up in the toilet.

So I like to get people to do powders and whatever nutrients I can. Plus, with the dose of the, pec dissolve, it's usually the, the high dose or the full dose is about six capsules and people just like another six capsules to swallow.

So put the put it in water, stir it up. Drink it down. It's easy. Yeah. One scoop is kind of the basic, wellness, dosing and the basic and not very sick person dosing, although sometimes it's a scoop twice a day if you're dealing with an adult and there even is a higher, scoop and a half twice a day if you're really dealing with this serious condition, congestive heart failure, I might be one of them where you're really working hard to make improvements.

Clinical Uses, Research, and Takeaways

And of course, like you say, you can add back this all on to any other natural or prescription therapy. Just separate the timing of, taking practice. I'll take it 30 minutes before breakfast, take an hour and a half after dinner, and take it separate from some of the supplements that you're using.

So I think, I think we've done a lot. And, you know, the last part of it is just this toxic life we have that, persist in organic pollutants DDT, dioxin, microplastics, pesticides.

You know, the heavy metals we talked about the BPA, all these are damaging tissues. And the fact that and all of them can stimulate galectin three. So since galectin three is that final conductor of this pathway of inflammation and scarring that's gone wild, that's gone in excess, that's gone overboard, you know, the argument to be made to put a scoop of, pack this all in your daily program for pretty much everybody can be made without too much hesitation.

Yeah. Yeah. And you know, the thing about it is that and my bottom line takeaway from this talk that we're having here is we need to be testing galectin three.

Most doctors are not testing galectin three. And it's an easy test. You know, it's not very expensive. And all the labs, all the blood labs will do it.

So if your doctor won't do it, find one of the direct access labs. There's plenty of them now in your area. The less you live in New York, and then you're out of luck and have to go to Connecticut.

But unless you know somebody in New York. But New York is a tough state. Unless it's prescribed by your physician. Any lab testing. But other than that, most people can easily get the test done.

And once you do, there's a solution here, either in addition to all the other solutions we've been presenting throughout this summit, right. The diet, the sleep, the stress management, the environmental pollution avoidance, all of that stuff.

But this little simple addition can be very helpful. Yeah, I think that's, an information and frankly, I did not know that about New York. Unfortunately.

So too bad for people there. And as you say, they might just have to travel to get it. So, yeah, I can find these, self ordered lab panels are identifying lots of pathology in people.

And sort of bypassing the standard medical system. And, you know, I think it's going to challenge the primary Care and Act's what to do with 105 tests that their patients bring to them.

I think they're going to shrug their shoulders, but I hope that they take the opposite path and say, I'm just going to have to learn this stuff. Exactly.

Dig in and find what is galectin three and what is lipoprotein and what can we do about it. So, well, I want to thank you for taking time, my dear colleagues, and, bringing up to date everybody on an important topic in cardiovascular health.

And when we're talking about reversing heart disease, we are really talking about blocking and reversing the impact galectin three and so many different syndromes, high blood pressure syndrome.

Oh, important important topic. Thank you so much. Activator Marie. Thank you.