Parkinson’s vs. Alzheimer’s: The Overlapping Causes & How To Prevent Both Transcript

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Summit Introduction and Guest Welcome

Hello and welcome to the Reversing Alzheimer's Summit. I am super excited to be bringing you guests each day that can transform the life of yourself, your family members, other people that you're taking care of.

And we're really grateful today to have one of the leaders in the field of Parkinson's here today, Doctor Ken. Charlene has, been practicing for decades and has built, a very successful practice bringing elements of functional medicine and others into the service of Parkinson's with incredible outcomes.

And, and there's also shared that message to tens of thousands of people across the world through his advocacy, his content and its work. And I'm really grateful for you to be here, doc. Thanks.

Thank you so much. Glad to be here. You know, this is the Alzheimer's Reversing Alzheimer's summit. And and I know that you do work with a range of brain diseases at your practice, and I maybe we can just start with what some of the similarities and differences are between Alzheimer's and Parkinson's.

You know, we've seen in, some of the work that we've seen that like the same cause two factors can drive different disease states in different people depending on their genetics and that their sort of uniqueness.

Is that the same with Parkinson's or that unique cause of factors for both? Well, no doubt there there's a tremendous amount of overlap.

Alzheimer's and Parkinson's Overlap

You know, I am a neurologist, just for the viewers sake and, medical, doctor, MD, neurologist from, trained at Emory Vanderbilt, University of Virginia.

And I've been in practice for about 30 years. So, I'm located in Ozark, Missouri. Although we have a reach around the world through our, my brain tumor program, my functional medicine approach to neurological conditions.

And we see people with a variety of, diseases, illnesses, Alzheimer's, Parkinson's, M. S., ALS, and so forth. But, specifically in regard to Parkinson's disease, of course, there are some common maladies, especially when we start, utilizing the principles of functional medicine.

Understanding root causes. And to your point, well, there, of course, are some unique aspects to each Parkinson's, Alzheimer's, some differing genetics for example, there are other commonalities, and there are other factors that seem to be universal.

For example, you know, the role of mitochondria, and or mitochondrial dysfunction in, Parkinson's disease has a fascinating, history and very much, at the center of, you know, our understanding about why people get Parkinson's, but also plays a role in Alzheimer's disease.

You know, I'm sure you've talked a lot about gut health and, you know, the microbiome and all that good stuff. And we know that in both conditions, often there are changes in the gut microbiome.

There is issues of gut, permeability or leaky gut that can play a role, hormone changes, things like that. Immunological changes, toxin exposures, common, common causes that seem to play a role in both diseases.

And, what is it? What is it? That sort of, what are some of the things that people would be able to tell whether

they're on a path for Alzheimer's or upon a path to Parkinson's or both?

Yeah. Well, I definitely think that, we need to, shift our thinking. And that's very much, of course, with, you and your team or the hard work you're doing that's putting out a summit like this.

Are, you know, involved with it. Because unless we're going to really put a dent in until, you know, we start shifting our thinking, we're not going to be able to put a major dent in these diseases.

And that really means that we need to be thinking about how we eat, how we sleep. You know, what we're exposed to? Are we moving our bodies? Because inevitably these are, you know, these lifestyle factors that play such a major role, are amongst the common root causes of the disease.

And we know that both conditions, in there, despite we recognize someone as with Parkinson's, is having a specific appearance, that different parts of the brain, at least early on, are affected compared to Alzheimer's disease.

That, you know, in the end, both can develop dementia, for example, although the pathology is a little bit different, and in fact, in reality, if you were to do an autopsy on the brain and somebody had died of Alzheimer's, you may find that there's quite a bit of, Parkinson's like pathology present.

Prodromal Symptoms and Early Warning Signs

And I've seen papers published suggesting as much as 50% of people with Alzheimer's disease also have Lewy bodies. The the, hallmark signing under the light microscope, in Parkinson's disease.

So it's not as neat and clean, as we'd like to think that it is. But both diseases really have a kind of an incubation or a prodromal period. And I think that's really important for the viewers.

I'm sure you've, you know, already talked to other experts who talk about a 10 to 20 year trajectory with Alzheimer's disease, where there may be early accumulation of the amyloid beta 42 protein.

You know, maybe the person is not even aware that there is anything going on until they start, experiencing subtle changes in the, in short term memory or other, you know, sort of hallmark signs of Alzheimer's.

But likewise, there are also a long trajectory for Parkinson's. There is a pre what we would call a pre motor or prodromal Parkinson's, evolution that may go on equally for decades.

And this is very, very well published and actually may be in some respects a sort of more obvious progression than the descent into Alzheimer's, in that some of the common findings that people experience many years before the onset of Parkinson's include changes in the sense of smell and taste.

It's probably mostly sense of smell, but they overlap so much that we can't smell, you know, taste very well. That may include something called REM sleep behavior disorder, in which individuals may seem to act out their dreams or talk in their sleep very vigorously, very regularly.

Of course not. I once talked in my sleep. Does that mean I am getting Parkinson's? Right? There may be personality changes. And interestingly, and because of our, you know, mutual interest, I'm sure, in gut health, chronic constipation, is an important, prodromal or premotor, symptom of Parkinson's.

And very often people who develop Parkinson's will report disproportionately a long history of struggling with constipation, before they develop Parkinson's.

So those are some of the major, things that we often look for, when we're when we're meeting with people in the very earliest stages where it may not be entirely obvious, it's clear something's going on.

But it may not be. Stand out. Obvious that that's definitely the diagnosis. Wonderful. I just want to share a practical

something that that came up. You know, part of the reason why I'm very much involved in this now and producing this summit and all of the work that we're doing to sort of scale the delivery of care that can reverse Alzheimer's is from my father and his cognitive decline.

That, you know, Doctor Burke is my co-host. Predicted the cause of without having seen him from across the world because she, you know, understands the pathology obviously clearly enough to know, you know, what could cause that sort of rapid decline.

You know, one of the interesting things is my father's a twin, his twin brother, I would say, by all accounts, is is healthier than my father, you know, lives a more active life.

And, you know, when he came down to visit my father, they're both in a mid to late 80s. He flew down to Cape Town from London and booked his own rental car and got his own hotel and was zipping around the town because he's capable of doing that.

And one thing I wanted to reflect on is that about ten years ago, I remember that he developed like a little bit of a like a shake in his hand. And I think that was the beginning of a of a real health kick for him and his wife.

And I would say that I've noticed personally that his trajectory is, if anything, in the other direction. Sprite. More clear, more able to get around, no obvious, clear progression.

And I put it down to the fact that I think at that moment he realized, oh, this is happening. And to got some advice and took that advice and in my eyes looks kind of better than ever for obviously someone that's in their late, late 80s.

Personal Story of Reversal and Hope

So I just wanted to share that back because I, I just feel like most of the way that we think about Parkinson's or we think about Alzheimer's or we think about these other diseases, is that this is like a one way street.

And, and I just witnessed that in my own life that this man was able to, like, turn that around and, gave me a lot of hope because it ultimately, it's not like he's knee deep in functional medicine either.

This is just like him taking action every day to be a healthier. I love that story that really is so important. It speaks to to so many things. The ability to, self determine our future to, to a degree, to a large degree in very important ways by taking action, the opportunity for early intervention, if we, you know, want to consider that I'm going to make some changes in my own life.

That's still an intervention, doesn't have to be a drug. And even when we talk about some of the, newly approved, the couple of FDA approved drugs for Alzheimer's disease, and that's, you know, probably a whole separate conversation.

But, you know, the data really shows that those who were most mildly affected actually did much, much better than when their cognitive scores were lower.

But they still met criteria to be in the clinical trial that led to FDA approval. So early intervention is so important. And then to your point that, you know, I use a sort of a similar analogy I talked about, you know, when you go on a roller coaster ride and you get in, you know, you've waited in line and you finally get in that car, whatever it's called.

And, you know, these are pretty seriously. You know, they're dangerous. I'm not. I like roller coasters, don't get me wrong. But if you're not properly secured in, you could die, you know, be very dangerous.

So, you know, the big bar comes down and the straps go on and this and that, and then, you know, tick tick tick tick tick tick, tick up the hill and down you go. And I would say, you know, it's not like that.

You know, life is not like that. Like we're not locked in, we're not strapped in where the inevitable just happens to us. We do make choices. We do take action.

And that's what any kind of, you know, these summits are really all about is like, they're about empowerment. So, you know, in my case, if if an identical twin is affected by multiple sclerosis, the other twin only has about a 25 to 30% chance of developing M. S..

So we see this over and over and over again, and even diseases that seem to have, you know, a very strong genetic component, for example, Huntington's disease, terrible disease that is determined by the presence of a certain number of what are called triple repeats and nucleic acids that make up our DNA.

We all have these triple repeats, which is like a like the word car, three letters spelled over and over and over again car, car, park or car. That's what a triple repeat is.

It's basically three nucleic acids that repeat themselves and everyone has them. But if you have a certain number of them, I think it's 40 or above, then you will get Huntington's disease.

And it's very unfortunate. But the reality is that even the people who have this critical number of triple repeats to get Huntington's disease, that, you know, they could get Huntington's at any age.

Unfortunately, you can see Huntington's in teenagers, you can see Huntington's in young adults, you can be like Woody Guthrie and, you know, get Huntington's in older, you know, age and life.

Toxins, Environmental Exposures, and Risk

But what does that tell you? In part, that these people, you know, despite the fact that you've got the genetics and you'll get the disease, there are clearly other factors very clearly that influence the expression of your genes.

And that's such an important message to folks that we do have control, much more control than we're led to believe. Beautiful. Well, I guess I'd like to just focus in on one area, because I think this is an area where I know you have some expertise, and I know there's some interesting literature here, which is in the presence of chemical toxins.

So, you know, Doctor Burke has identified like six subsets of root cause, and one of them is chemical toxin. So might be metals and, and, heavy metals, and it could be other toxins from the environment.

And this is ultimately something that is somewhat in our control. Right. Because you put you could purchase those toxins and you could choose to not purchase those.

But I just love to get your input on this, because I know from the early days of when I was in the industry, people in our world or in my world then would be like, oh, Parkinson's is this.

And it would typically be some sort of metal, you know, heavy metal or some sort of toxic exposure that drove it. And, I, I'd love to just know, you know, to what degree do you think that is true now that you have, like, decades of experience in treating patients of very varieties, is there always a toxic component?

And what are some of the most common ones that you've identified? Well, I don't know if there's always a toxic component, but certainly toxins are well recognized to play a role in neurodegenerative diseases, including Parkinson's, perhaps even prominently in Parkinson's.

There has in very recent, more, much more recently, been an interest in a compound that was finally, finally banned, only very recently banned at the federal government level called trichloroethylene, or TCE, which was so pervasive in our modern society, meaning it was used in everything from industrial applications to dry cleaning to household and personal care products.

And, you know, we always say our skin is our biggest Oregon and there are many drugs that are transdermal or if hormones and people use, you know, testosterone cream or progesterone and rest dial things like that.

So clearly you put something on your skin, it can get absorbed systemically into your body. And you know, TCE is a more recently, described major risk factor.

You know, pesticides and herbicides, have long been recognized as factors. In fact, I think they're the literature. Well, supports the observation that, for example, you know, farmers that are at greater risk for developing Parkinson's because of these potential exposure.

And then another one that gets has been getting a lot of attention. I was honored to, attend the International Congress in Parkinson's on Parkinson's and Movement Disorders this past September in Philadelphia.

So this is not functional medicine, but this is a you know, people come from all around the world, research, science to some clinicians to present major papers and learn about these diseases.

And I was relieved to see that one of the discussions that took place was about, PM 2.5 or particulate matter 2.5, you know, which is basically in the air we breathe.

It's it's air pollution. And air pollution is a major risk factor for Parkinson's and for all timers. Disease. So these are things that we have some degree of control over the simple message of, you know, environmental working group Dirty Dozen clean 15.

And, you know, so trying to eat organic when possible, focusing at least on, you know, eliminating the dirty dozen from your refrigerator or in your cupboard, you know, perhaps filtering your water, having a good water filtration system at home, thinking, you know, change your air filters, you know, in your, you know, home environmental control system, your Hvac, you know, think about what personal care products you're using, you know, inquire if you do use dry cleaning.

You know, we all have anecdotes. We all have those kind of ones. And, you know, I think those have limited value. But, you know, I have a patient with Parkinson's that, you know, he's an attorney.

And, and of course, any profession can be affected by Parkinson's. But I always think of the attorneys and they're, you know, well pressed suits and shirts and all that every single day dousing their bodies in these compounds. So, you know, just doing your best doesn't mean you're going to cure the disease or absolutely eliminate it.

But it's sort of like saying, well, if I smoke cigarets, I might not get lung cancer, I might not have a heart attack or stroke or whatever. But you know what? Why?

Why are you messing with that? Right? You know, in the first place you want to really eliminate your risk or keep it to a minimum and you just don't smoke, you know, you don't say, well, I'll just play out the statistic and, you know, risks and see what happens.

I'm awesome. Well, I'd love to just sort of understand what's happening in your practice because I know, you know, you become well known in this sort of functional medicine application for Parkinson's.

So let's just say someone identifies that they're in their prodromal period, for either Parkinson's or all timers, right?

Functional Medicine Evaluation and Testing

So that pre Parkinson's, pre Alzheimer's, then maybe starting to have some of the symptoms. They're starting to like take action. And ultimately if you're listening to this summit like this is exactly vision for what would happen at the end of this summit is that you would identify, okay.

Some of these things I'm starting to experience and I'm going to go and like, now try and, take, you know, make

some progress on this. So I guess my question is, in that scenario, someone comes in and they don't have a lot of like, intense symptoms, but they sort of realize that they're on the pathway.

What does the experience at your center look like? And what do you typically do in order, in order to, leave the person at the other end in better health than they arrive and empower them towards, you know, living the next dozen years and in good health and pushing any of these, disease categories off.

So we do get some of those folks. I would say in the context of Parkinson's, it's often someone who's developed tremor. Now, the the tremor of Parkinson's is fairly specific, and it's often at least described as a tremor at rest, sometimes described as having a pill rolling quality.

And many people do have tremor for other reasons. There's a common tremor referred to as essential tremor. Generally, a postural tremor with your hand held out or as you're reaching for something.

So we'll talk about spilling drinks or having trouble using it in, utensils. But because we intuitively, just as human beings, associate tremor with Parkinson's, when the person develops tremor and they're a little worried, the thing is, it's Parkinson's.

They'll often come and see me and and sometimes, you know, the pleasure that I have is to reassure them that this is not Parkinson's. This is essential tremor.

There are treatments. This is not dangerous, per se. Your treatment, depending on how, you know, a lot of the decision about what kind of treatment a person wants really depends on where they are sort of mentally, emotionally, psychologically.

Meaning not everyone is, sort of in tune with the principles of functional medicine. Some are more motivated in that direction. So sometimes someone will say, oh, I'm great, I don't have Parkinson's.

I don't necessarily need a pill. This tremor is not going to kill me. It's, you know, more of a quality of life issue for right now. I'll just, you know, find some ways to, get a, you know, deal with it and not, not necessarily do anything different.

Now, I will say that I do see and in that context, some of those folks will say, I have tremor and I have a family history of, say, Parkinson's. So those folks are a little more, even a little more worried, obviously.

And along similar lines, we might see someone who comes in because if you're like me, I turned 60 in December and you know, I'd lost my keys more than one time in my life and or put some whatever, you know, went into a room and go, what did I walk in here for?

That it's probably because my brain is trying to think of too many things at once. It's more a distractibility, of course. But nevertheless, we all have those what we might call senior moments.

Maybe there is a family history. It's a little bit easier to identify those folks, at risk for Alzheimer's. Because I'm sure you've had discussions about things like the ApoE4 testing and other things that can be done, to sort of help to frame out whether that person truly is at risk.

With Parkinson's, the parallel would be that in Alzheimer's disease, there's accumulation of an insoluble protein called amyloid beta 42. In Parkinson's disease, the protein that's associated with Parkinson's is called alpha synuclein.

And at least in some people, it is thought that alpha synuclein actually starts, is formed in the gut, and finds its way to the brain by way of the vagus nerve.

But it turns out that this alpha synuclein protein, which forms what are called the Lewy bodies of Parkinson's disease, can also be found in the skin.

It can be found in the spinal fluid. And it is possible in in cases where we're trying to sort out. Is something actually going on here to do? For example, a skin punch biopsy, which I'm going to reach a little in front of me for a prop basically is a ballpoint pen.

So we're talking about getting a little piece of skin about the size of the tip of my pen. That's taken from an area above the ankle, just above the knee, and, adjacent to a little bony process that sticks out at the base of the neck, called your C7 process, after some numbing medicine is applied.

But you can imagine the actual biopsy is so small that, you know, it's really a minimal, procedure. Little Band-Aid takes care of the after, you know, the after care of the procedure.

And it's sent to a lab in the Phoenix, Arizona area, called C and D, light C and the life sciences, that ultimately can look at it under the microscope and identify, the alpha synuclein in these samples.

Otherwise, you have to, like I said, do a spinal fluid test. And although it does form in the gut, we are not quite at a level commercially where you can get a poop test and look for alpha synuclein, for example, in the stool.

But the bottom line is you can test for this it there are a number of, Parkinson's related disorders that are also characterized by these Lewy bodies or by alpha synuclein.

And so when you do have an abnormal test, you don't want to put the cart before the horse. In other words, you don't want 100 people with absolutely no symptoms and no findings and nothing just randomly getting tests because you'll have a lot of false positives and things like that.

But if the person's coming in with changes in posture, changes in voice, slow movement, you know, shuffling gait, maybe unilateral tremor, rigidity, etc., and, you know, sort of walks like a duck, talks like a duck as it were.

And you do, and you need some confirmation. The tests can be very helpful. But to your point, we want to catch things early. And mostly in this case, we probably want to educate people that, you know, if you're seeing some of these changes, like REM sleep behavioral disorder and constipation and you've lost your sense of smell, that's that's something to be taken very seriously.

COVID, Smell Loss, and Neurodegeneration

And we can certainly investigate that. And you're going to find, since you're watching the Alzheimer Summit here, that many of the approaches that we're going to take here in Ozark, Missouri, or with you by, by, you know, telemedicine are going to be very, very similar to the to the approaches that you're going to take if you have early stage all timers disease.

Yeah. So we're we're going to focus on foundational lifestyle medicine and lab tests that help us take a deep dive to understand why it is you got sick and what it is that we need to correct.

Just just a quick one. On on the taste and smell. Obviously that was like a key symptom during Covid. So, you know, is it this is it the same thing happening or is it just two things that end up with the same symptom.

Yeah. That is that is a great question. And in making the even more complicated is, you know, we were talking about toxins earlier, such as chemicals and heavy metals.

But the reality is there are also biological toxins and Covid is a very neurotrophic virus. You know, it's been found in the brain, even after people get over the disease.

And there was very early awareness that we were probably going to see a big uptick of all kinds of neurodegenerative disorders, from Parkinson's to Alzheimer's.

And, you know, and ALS. And I have seen that, so why it is, you know, well, we we're infected and I'm not this part.

I'm not I'm going to give you a little bit of a speculative answer, because I'm not necessarily that well versed on it. But, you know, these viruses do enter, the body through the nose, right through the respiratory tract, through the nose.

You have your crisper foreign plate at the sort of the base of the skull, which is the and it has the little, nerve fibers from the olfactory nerve, one of the 12 cranial nerves.

That's a direct connection to the brain and specifically to what we call the limbic system of the brain, which is affected very much in Alzheimer's disease.

And so these this is a route to the brain. Why it is that the virus, sort of kills these nerve cells. You know, I don't know all of the answers, but, you know, viruses infect cells, and they hijack our DNA or RNA or genetic machinery to replicate themselves.

And then ultimately, you know, sort of burst out of the cell, just like the movie alien, when the when the insulin, when he comes out.

Advocacy, Lifestyle Medicine, and Closing Remarks

So I'm sure there's destruction of neurons just by way of direct infection and replication, of the virus as well, not to mention any digital negative changes that are triggered by the viral infection.

Well, I think that'll be the only reference to the film alien on this summit, but we haven't done interviews yet. Well, look, I really appreciate that.

I guess the last question I want to ask you is, you know, in the early days of when I got interested in this topic, when I first sort of found out that maybe Alzheimer's and these kinds of conditions were reversible, it was the 2017, AFM conference.

And I went down there and we did this pre-party and I knew, you know, Seth Rogen, the comedian and his wife put on an event every year about Alzheimer's, called hilarity for Charity.

And through that process, you know, I invited them to come and be at this pre-party event that I did. And Seth's wife was very keen on it until the moment that, like, she copied in her two people that were from the charity that she represents or works, and then it was sort of shut down because like, this was speculative medicine or like, you know, it was the very beginning of Doctor Bredesen thesis.

Right, which is now gone through various levels of trials. And I know that in Parkinson's, you've got like Michael J. Fox as the guy, you know, who's raising a lot of money and awareness for it.

And I guess I just wanted to get your thoughts on to what degree, these sorts of organizations like aiding the the transformation of these diseases towards an approach that can actually, like, put them off or reverse them versus just sort of like being, being, either willing or witting or unwitting, continuation of a standard of care that, that cannot do that.

That's that's really interesting. Absolutely. So I will tell you that, at the International Congress, which is the major meeting for Parkinson's and movement disorders around the world, the next one will be in Hawaii and be in September this year in Hawaii.

Because we get, you know, because it's an international Congress, you get people from the Pacific Rim that come in. So I guess Hawaii is, you know, sensible, from time to time, not just a great place to visit or go surfing.

But at any rate, there is a within the movement disorder Society that that sponsors the Congress. There is a section there is a group of individuals who recognize the role that lifestyle and lifestyle medicine can play, both in terms of putting folks at risk as well as potentially mitigating, the disease itself. Now, you know, just like your observation

with Doctor Bredesen and all that, that unfortunately, while there are many things that go on that are cutting edge and that are really ahead in some respects of where, we are in terms of functional medicine, there are also aspects that are behind.

Right? So they sort of pretend like, well, it looks like mindfulness could be a really powerful tool when it comes to Parkinson's, but we're still investigating it.

It looks like diet probably plays a role, but we're not 100% sure and we're still investigating it. So, you know, all the while we're kind of going like this, you know, as we go.

Of course it is. Of course it is. Of course it's important. And then we have to get beyond beyond the science because we have to change an entire culture of medicine.

James. I mean, yeah, functional medicine is very popular, and I certainly hope we have thousands and thousands of people on this summit. The reality is there exponentially more people that are affected that go to exponentially more doctors that have no no idea, no knowledge.

And not only do they not have no knowledge or belief system that this is relevant, but even when they're kind of clued in, they're like, I know it's important dot, dot, dot, but I don't know what to do or I don't have the time to do it because I have to see 25, 30, 40 patients in a given day.

And then there was the old, does my insurance cover it? And are you really committed to making that change? Or do you just like to hear about it and talk about it and read the books?

But in reality, this stuff is hard work for all of us. For all of us. Yeah, it's hard work for patients. It's hard work for for the doctor too. Too. Like it's intellectually challenging.

But ultimately, you know, if you can achieve the outcomes, it is extremely gratifying for all involved, too, because, you know, ultimately it's giving you a sense of agency and empowerment.

It's giving the doctor an incredible experience of seeing those kind of, you know, transformation as well. Don't I really want to thank you for your time, attention, your effort, you know, your work and building the center.

I'm really grateful for you to play a part in this summit, and I think there's so much that we can learn from all of these brain diseases. And we need, you know, we need all, hands on deck for what is about to, you know, happen or what is already happening with regard to the number of people, being affected by, brain diseases and neurodegeneration.

So thank you for your leadership. Thank you for being part of the summit. If you'd like to find out more about Doctor Shannon's practice, you can, we'll have all the details in the show notes and, how to get in touch with him and some of the different work and, information he's put out.

Thank you so much for being part of the summit. And we'll see you on the next section. Thanks, James.