Introduction to PANS, PANDAS, and Autism

So there's pans, pandas, and there's autism, and then sometimes there's a combination of the two. So pans, pandas is in nature, really what it stands for is pediatric autoimmune.

So that A in pans or pandas is autoimmune in nature. So when we get into having pans or pandas, there's some kind of culprit that turns on the immune system for the body to then attack itself.

So, PANS and PANDAS in autism are not the same disorder. They are two different disorders, but you can marry the two. Like, you could have a child who has PANS and PANDAS and autism, or you could have an autistic child with PANS and PANDAS, you know.

So, unfortunately, you could have a child that has both. But your classic PAN-PANDAS kid is somebody who actually is neurotypical. This is Doctor Talks, real talk from real doctors on the issues that matter to you most.

Hi, I'm your host, Dr. Edward Park, and welcome back to another episode of the Retry to Biomedical Podcast. Today, we're very lucky to be joined by Jodi Repko.

Hey, Jodi. Hi, how are you? Great. So Jodi and I met three years ago. She was very enthusiastic about the course that I created and she actually had the highest attendance record.

I think she probably made 15 out of 20. And that was really helpful because sometimes there are only two or three people there. So thank you for that.

And the ones I did enjoy in person I watched later, by the way. Of course. So Mother was the necessity of invention and need and all that. So Jodie has twins, Maggie and Michael.

Jodi's Family Story and Her Son's Early Development

And Michael has some kind of autistic spectrum disorder, I guess we could call it. Can you describe what that's like? Yeah, for sure. So first of all, thank you so much for having me.

I'm very passionate about Sharing what I've learned and helping others in their journey. I have so much empathy for individuals whose bodies are affected.

And I say that and I mean it when I say bodies are affected because what we have found with autism is that it is not in any way, shape or form an intelligence issue.

It's really just a disconnect between the brain and the body. So first and foremost, I am a provider. I do have to say, obviously what I talk about today is for educational purposes only.

And secondly, what I also want to say is that, so when you start talking about autism, there's, you know, there's sometimes people can get the, to get the idea that I'm actually trying to go out and just cure autism or fix autism.

And then we don't want people to say like, Oh, I'm beautiful and I'm awesome and I'm autistic and I don't need to be fixed. But that's not what we're here today to talk about.

So what I'm talking about is how to help the body challenges that are associated with autism spectrum disorder. Okay, so I absolutely know beyond a shadow of a doubt that my son is incredibly intelligent.

He is beautiful. He is such a joy to be around. So autism itself is not a problem. What I'm talking about here, and

we all know these. being a doctor, you would know that there's, you know, sometimes you meet those doctors who are brilliant, brilliant, brilliant, but they have sometimes this little bit of a social quirk, right?

So there's, when you get into talking about autism, unfortunately, there's such a spectrum. So we have the people who are, the individuals who are incredibly intelligent, fully verbal, maybe have some social quirk, some social anxieties, those kinds of things.

And they're on the same spectrum with the individuals who have more body challenges, sometimes like seizures and inflammation in the body, pain in the body, judgments and mistreatments from other people, frustrations because they can't get their thoughts out.

So there's a lot that goes into when we talk about trying to help the autistic body. Again, it's not trying to fix a problem, it's trying to fix the challenges that might go with it.

So let's contextualize this a little bit for people because you obviously have lived it for a while and you're practicing and you're treating. Some families will come to you and you'll treat kids affected, but a lot of people don't know that much about it.

So let me just back up and contextualize it for the new, new listener. Okay. So autism spectrum disorders, they used to call them pervasive developmental delay.

I think the hallmark of it is kind of a low functioning of the social interaction, the normal things that people take for granted, when to be quiet, when to mirror, how to mirror, how to empathize, a lot of the basic cognitive skills that help us navigate life.

don't develop so well and the word autism means turning inside. So they're very internally preoccupied. Now, if you take that to the technical officer of a computer company, it might look good that they are rude or whatever, but they have Asperger's and they're quote, high functioning.

But what you're dealing with mainly in your practice is kids that are not able to integrate well into social environments, school environments. And so there are a lot of ways into that.

Some people think it's an in uteral brain pruning thing. Some people think it is triggered by vaccines. I've heard that many times. Some people think it's nutritionally based.

I just interviewed a lady yesterday who has Nutri Genomics Company. And she swears up and down, as people do, who are selling things, that once they figure out what jeans were off, two weeks later, it was a total new person, interactive, social.

So a lot of the things that happen is that there'll be tick-like disorders. People will have, like, when I went to the Elisa Song A4MPEDES thing, it was two, three days of lectures about tick disorders, gut dysbiosis.

I mean, I'm sure you've been all down these paths, you know. Gene snips, right? Polymorphisms, methylation. And then there's the whole pants panda thing, which we'll get into with Nancy O'Hara.

But for the families struggling with this, basically, they just want their kids to have better and better lives, quality of lives, maybe not even independence, but just some kind of peace.

And I guess that's what you're trying to do. So you took the course and you're starting to treat kids with autistic spectrum disorders all over their spectrum.

What are you seeing in terms of their neuroinflammation, their short-term, long-term results? Can you share a little bit with that? Yeah, so into to kind of go back with what you were talking about.

So none of us really completely understand autism. I wish it was as simple as just doing a SNP panel and finding

what that single nucleotide polymorphism might be needing to turn on and taking care of that.

Autism as a Brain-Body Disconnect

Or sometimes it's fully processing and then we go and we do that. Autism is absolutely a multidisciplinary approach. And when you talk about things like environmental triggers, so we do believe there's an epigenetic, so there is some kind of SNP profile.

There's an epigenetic predisposition with some kind of environmental trigger that causes autism. Now, what that environmental trigger could be is different in many individuals.

I've even had individuals that I've seen who regressed after a chlorinated pool. So things that could be a diet thing, it could have been a virus, it could have been an illness, could it have been a vaccination.

I don't know. I don't want to get into that because there'll be all kinds of people that are hating on us for that. But it's an environmental trigger when you have a predisposition to that is what we believe at this point is the culprit.

Okay. So, but once you slip into that, as you mentioned, there are this spectrum. So you have, you know, we used to call them Ashburgers where you have your higher functioning, extremely, extremely intelligent, maybe socially quirky individuals who, you know, do fine in society and do that.

And then we have on that same spectrum, those who can't get control of your body, never be able to fully potty train. Maybe in pain they lash out because they're in pain.

attack their parents because of their body challenges. So there's such a spectrum there and of things that we're dealing with on a day-to-day basis, not only as parents, but as providers.

So there's a lot of schools of thought on how to treat that, but absolutely, positively, it's a multidisciplinary approach. So I did incorporate into using exosomes, into using exosomes for autism, but absolutely, beyond a shadow of a doubt, I do a multidisciplinary approach.

That is not the only approach we use. I don't even do exosomes on patients if they're only, you know, doing exosomes or stem cells or they come to me and say, you know, I don't want to change my diet.

I don't want to change my environment. I don't want to look at any of these other factors. Then we're not even going to do a treatment on you. I'm not going to refuse care.

I'll put you on a plan to get to that. But it's absolutely multidisciplinary. There are multiple things that we have to look at. So I don't know an autistic person that hasn't tried elimination diets.

They all have. Some have done genetic testing for those SNPs and maybe tweaking the nutrition. You know, some have a story, some not even vaccinated. So there seems to be some neuro-inflammation trigger and then things feed into it.

But let's, you're such an interesting case because you had twins, Michael and Maggie. And so one could argue that's an experiment. Like you had the same in-utero environment.

Have you detected any significant genetic divergence at all? Yeah, I mean, everything exactly the same versus and the only difference is boy girl. So X, Y versus X, X, right?

So only really difference. Same vaccinations on the same day. Well, I had twins, so I was really, really trying as hard as I could to breastfeed. But there was two and they grew really fast and they ate a lot.

So I pumped. I'm trying not to decipher. Yeah. So was there a moment in time when you saw them diverging in terms of their eye tracking and speech and comfort level in their body?

Yeah, absolutely. She was, no, she's completely neurotypical. And, you know, I hate to say that word per se, but she's on task for everything. She's straight A student, super, super brilliant.

He's incredibly brilliant too, by the way. The boy can do complex math in his head. But yes, around 18 months is when I really started to notice it. Probably between 14 and 18 months is when I really noticed that he was just not doing the meaningful battle.

He was showing all the signs, you know, slamming the doors over and over again, carrying around sticks, not doing the meaningful babble. She was speech delayed, but she caught up very quickly.

He just didn't, he never really progressed. Oh, he was not one of those children that regressed. He just never really progressed. I don't really have anything that I can look back and say, you know, I, Oh, I think that this was the trigger or this particular time.

That's where it happened. It was gradual in your mind. It wasn't like it was gradual a weekend eating paint chips or anything like that. Right. Right.

No. Yeah, exactly. So, and you know, I'm being a brand new mom, there might've been signs I didn't pick up beforehand. You know, there was, probably some warning signs that I kind of thought, well, he's just a boy, he's delayed and he'll catch up, but you know, it just didn't happen.

And he's, they're 12 now and he's incredibly, incredibly brilliant. So the main thing that we deal with at this point is something called apraxia of the body.

So it's a disconnect between the brain and the body. So he's officially diagnosed with autism, but the main issue that we really have is a disconnect between the brain and the body.

And that's what we're finding more and more is that It's really not an intellectual disability. These kids, these individuals, I should say, not just kids, but individuals are brilliant.

Neuroinflammation, Exosomes, and the Blood-Brain Barrier

They're just, I mean, my son could do complex math in his head. I'm talking like 84,326 times 44,327, and he just knows the answer. They can't say the answer and he can't write the answer, but we actually do something.

So you said that he was very nonverbal. And so has he been homeschooled throughout? No, we did. We did some public school. We did ABA based school. I did pull him out of schooling when I found out how incredibly intelligent he was.

And that's another thing that we deal with. a lot as parents and as individuals on the spectrum is there's a lot of trauma. Unfortunately, sometimes we're just our kids are just not treated very well.

And it's not I'm not saying over across the board. I mean, there's some wonderful people that work with our children. Absolutely wonderful. But then there's also some that just don't.

You know, my my son was called crazy. At some point, it was just different things. I was told he was intellectually disabled right in front of him over and over again, and he's not.

I mean, he can obviously do complex math in his head. He's basically in algebra at 12 years old. But like I said, because you can't, all of our tests for intelligence come down to can you say it, can you write it, right?

And there's no way else to test your intelligence. You share with me the grid of all the different matrices you can measure. And so after you started using Exosomes, I know that Disneyland became an option for the social interaction.

Yeah. And then the fine motor skills also seem to improve. For some reason, you're saying his speech production is virtually nonexistent? He has some speech and, and, and so, so let me just clarify real quick.

So the, on the Praxia, we do something called spelling to communicate, which is where he communicates by spelling his answers on letter boards. Um, and that has been an absolute game changer for me.

So anybody who's dealing with anybody who has verbal challenges, I strongly encourage you look into, it's called spelling to communicate or letter boarding.

It's also called RPM, Brompton method. It's all the same technique. You're basically teaching them a way to communicate. It's kind of like. If you were blind, you would learn Braille.

If you were deaf, you would learn sign language. We're still gonna work on their speech, but this is a way to communicate in that. Now, when I found out that he was this incredibly intelligent, then I started trying to figure out how do I go in and access, because there's a disconnect between his brain and his body.

His brain is so incredibly smart, but his body is not connecting to it, right? So I kind of think of this as you're incredibly intelligent and you've had a stroke, and now you can't get your mouth to work.

right? But your brain is still fine and your brain is still saying like mouth work and you're trying really hard to say those things, but this connection is not there.

So I started really, really diving into when I figured this out with my son that his major problem was not intelligence. He's not intellectually disabled.

His major problem is his mouth, like getting the brain to connect with the mouth. There's so much involved in that. It's so much fine motor. You know, we take it for granted.

We're just, we're doing it, you know, and you're very elegant in the way you speak. You know, it's just, We just take it for granted, but there's so much that gets involved in that.

So I started to try to really dive into how do I try to put those connections back together? How can I get his brain to connect with his mouth? And then I came across exosomes.

And the reason I really came across exosomes and really started diving into this There's a study from Dr. Daniel Ofen where he actually was able to prove that exosomes can get their way into the brain.

There's very few things that can cross the blood-brain barrier, right? And I know you know this as a physician. So when we get into and we're trying to work on the actual brain itself, we have a protective measure.

We have a barrier around our brain that protects us from getting pathogens in our brain so we don't get brain infections and all these kinds of things, right?

So there's very few things though that can penetrate that blood-brain barrier and actually work on the brain. And there's a lot of research that has where they've done post-mortem autopsies where they've got two groups of children who unfortunately died tragically, maybe five years old.

They both died in a drowning accident or a car accident and they compared the autistic brain with the neurotypical brain and tried to figure out what was the difference.

Well, actually, they just checked the whole body, but what was the difference? And one of the main things they found was inflammation of the glia cells of the brain.

So there was this microglia inflammation and this has, you know, been very well documented. So we know that there is some level, and this is not across the board every autistic individual, but there is some level of

neuroinflammation involved in autism spectrum, right?

So then I started thinking, how do I go in and affect the brain? How do I try to calm this brain down? And exosomes, because they're so incredibly small, and obviously you're the one who taught me most of this, but you know, they're 800 times smaller than a single cell.

frost that blood-brain barrier. They can get in and they can penetrate. And Dr. Daniel Wolfen actually has an amazing study where he was able to show that.

He actually, it was a mouse model, but he actually was able to radiate like he put some dye on the exosomes and he watched where they went. Yeah, for sure.

And there is a bit, it's just the way that it gets into the brain. And then because exosomes have the potential, right? Because the, you know, exosomes, I know anybody listening to your podcast probably understands this already, but exosomes are basically just signals.

They're just a network of like, kind of like an email pack, an email or a FedEx package, it's just got some signals in it. And these, what these instructions tell ourselves is to try to work in three main ways in autism.

The number one way is try to calm inflammation. Well, we know this is important when we get into things like neuroinflammation, right? So that set of instructions, that packet of instructions, if it's going to go in and tell those cells to calm down, and we can get it into the brain and we can actually get it into those cells where the inflammation is, we have the potential to calm that neuroinflammation.

And then I do, in my clinic, I do give it as using a dart nasal atomizer and that's what Dr. Daniel Open used in his study. So using that dart nasal atomizer gets it into, you know, crosses and gets it into the nose, crosses the cribriform process here, gets into the vasculature and just makes its way across the blood-brain barrier and actually gets into the brain and can help try to calm that neuroinflammation.

Another of the major ways that it can help and has the potential to help in autism is regenerative or reparative, right? So again, that disconnect between the brain and the body.

So I know you know this, but exosomes are currently being studied and used in reparative or regenerative medicine. So they have the potential to try to repair those pathways, right?

So we have this disconnect between the brain and the body. And if we can repair that pathway, like myelinate that pathway so that it's working better.

And that's where, when you were talking about fine motor and gross motor, you know, we're seeing those things have improved because we've got that that reparative regenerative type property with these exosomes.

And then the third way is the immune system. So when we go in and I've done functional medicine for quite some time and we do stool testing on these little guys or I should say individuals in general, not always little guys, but we do like stool testing and maybe they come back with something like salmonella.

PANS, PANDAS, and Autoimmune Overlap

So salmonella we know is a foodborne illness. Most of us, we get salmonella. We're going to spend some time in the bathroom and we're going to get rid of it, right?

they just kind of have it hanging out in their gut all the time but no symptoms of it because the immune system is not recognizing that as a problem and if we can go in and correct her some of those immune imbalances the immune system then we have the potential to also help right so because absolutely one of the issues is beautifully stated so you know on that note what do you think about the the relationship between pans and pandas we age because our telomeres shorten and our stem cells deplete but what if we could support both I've been taking TA65

for 17 years.

It's the only supplement I trust to support better mood, better sleep, and exercise recovery. At age 57, I don't have any gray hair and I don't need reading glasses.

TA65 is available now. Go to rechargebiomedical.com slash TA-65 and enter promo code RECHARGE10 to save 10% off. So there's pans, pandas, and there's autism, and then sometimes there's a combination of the two.

So pans, pandas is in nature, really what it stands for is pediatric autoimmune. So that A in pans or pandas is autoimmune in nature. So when we get into having pans or pandas, there's some kind of culprit that turns on the immune system for the body to then attack itself, okay?

So pans and pandas in autism are not the same disorder. They are two different disorders, but you can marry the two. Like you could have a child who has pans and pandas and autism, or you can have an autistic child with pans and pandas.

You know, so unfortunately you could have a child that has both, but a lot, your, your classic pan pandas kid is somebody who actually is neuro-typical.

And then has a sudden onset one day of some, of a certain criteria. And that criteria is usually OCDs and regressions and handwriting. The number one thing is, is really OCDs.

But they have all these criteria where it's a sudden onset of changes. But generally speaking, your true Pans Pandas kids are going to be your neurotypical kids who suddenly just changed one day.

The parents will say, October 29th, they were this way and October 30th, they were this way. So there's a usually a sudden D. Now, like I said, you can have some blurring of the lines.

You can have autistic kids who then have pans-pandas. Those are a little bit harder to tell because if you're not fully verbal and they don't lose those, suddenly they lost that date, it's a little harder.

But yes, there is two disorders there. You know exosomes can be used in pans pandas as well because because it's autoimmune in nature and I know you know this because you obviously do this.

So we know that exosomes are currently being researched and studied for autoimmune diseases things like multiple sclerosis and lupus and Crohn's disease right where your body is attacking itself whole pans pandas is autoimmune in nature.

So if we go in and we can help correct for those immune system dysregulations or dysbalances, that's not the right word, dysregulations, right? Then we can go in and we can try to correct for that underlying issue of the bias pandas.

Thank you for explaining the difference and the overlap. So when I went to this conference that Elisa song A4MP, which is kind of similar to NAPS, all these speakers were bringing up gut dysbiosis and a variety of topics, but that did come up quite a bit that, you know, the elimination diet can be helpful, gut dysbiosis, even fecal transplant potentially helpful.

But, you know, everyone sort of latches onto that miracle. Like all of a sudden you just get near neurotypicality from some golden bullet. But those cases are very rare.

And I was very struck by one lecturer Who, I mean, you just look for improvement. Anything that's improvement is good. But this woman took her kid to Disneyland and he binged on whatever foods.

And the next day he developed like a seven year tick. Like facial ticks, verbal ticks. And the way she explained it was when the body is inflamed, I guess maybe the blood brain barrier opened and there was some kind of

autoimmune thing that was triggered.

Diet, Gut Health, and Toxic Burden

But she says that when he does stuff to self soothe and breathe and stretch and whatever music that that whole pot doesn't boil over and he doesn't get the ticks.

So she actually pivoted into like a training program and now helps kids be athletic superstars. So I think there is a lot that kids can be taught to auto-regulate and to self-suit so that they're not having those discharges, the ticks, you know?

But that's not a sale. Okay, good. Yeah, there's actually quite a bit of research that ticks are associated with high dopamine. So, and I don't know exactly what happened with Disney.

I don't know if that was what set it off or it was just kind of coincidental. But very often when you have ticks, then you have imbalances of your neurotransmitters so there's neurotransmitters in our brain right we have serotonin we have dopamine we have glutamate so like for instance the neurotransmitter glutamate is very associated with hyperactivity and a lot of our kids when you got it when you were talking about the panels or getting into those genomics.

A lot of our individuals on the spectrum have some SNP deficiencies where they don't, like glutamate is supposed to be transferred to GABA. So GABA is a calming neurotransmitter.

Glutamate is an excitatory neurotransmitter. A lot of our little guys are, sorry, I keep saying that, but most of the kids we treat, honestly, the ratio with autism is four to one boys.

So like you say guys, but it is girls affected as well. Most of our individuals, a lot of times, have some imbalances in their neurotransmitters. And we can find that on things like oat testing, or there are other ways to look at that.

If we look into the SNP panels, we can see that they have some problems taking that glutamate into GABA. And glutamate is, we'll see a lot of hyperactivity, a lot of hyperactivity in our autism population.

And a lot of that is glutamate. So if we can go in and bind to the glutamate, then we can help reduce that down. You think where do you get the diet? I think it's very suspicious in terms of the high fructose corn syrup, the seed oils in the processed foods, the preservatives, the glyphosate, atrazine.

You think there's many ways to get into gut dysbiosis and an inflammatory diet or is that just, is that contributing? Is that why you always have your parents agree to certain kind of dietary restrictions?

Well, there's several things that are involved. Very often we have, and really it's not just our individuals on the spectrum who have issues with their diet.

Really, it's great. All right, everybody, you guys are getting the same, yeah. Cool. Cool blast. I mean, let's be honest, none of us are doing very well with our diets.

We have, I mean, obesity and ADHD and all these different disorders in our country. I mean, diabetes and all these different things and a lot of it can be linked to diet, right?

So yes, but what we see in our in our autistic individuals is that a lot of times we have some detox pathway problems. And that's part of the reason we think that it does, you know, have that insult is that you have issues with detox.

So some of those detox pathways may not be working as well. It doesn't mean it has to be, but it could be right. And so when we get into things like you know, all of our food dyes and our glyphosate and our pesticides and all of our, you know, all the different things that could be in our foods, all of our genetically modified foods, all of our

processed foods, those things are harder for their bodies to detox those things out.

And so we do end up with this kind of toxic burden. And then that toxic burden can present as as issues with, you know, brain fog and cognition issues, body control issues, because there is a toxic burden there.

And there's such a theory on metals and, you know, but that's all in that whole, that whole toxic burden thing, right? It's all in that same concept. of that, getting that detox pathways opened up is really important.

Are you seeing a lot of immune dysregulation and mold and Lyme in some of your patients or not that you're young? No, no, absolutely. So, you know, I'm not one of those people who think everything is mold.

So there are some clinicians that everything is Lyme and mold. And so I'm not that because I do think there are other things in the world except for Lyme and mold.

But absolutely, you know, the limes and the coals and the molds and All of those things are things we have to consider. So when I say that when it's just really, really vital that people understand that treating autism and honestly, most of your complex medical conditions is multidisciplinary.

It is not just as simple as one thing. You know, we have to go in, we have to clean up our diet, we have to look at our environment. stop using these, you know, like, just for lack of a better word, just fast food, you know, gross foods, honestly, you know, clean up our environment, clean up our what we're using to put in our body, you know, garbage in garbage out, right?

So you're putting Yeah, if you're putting No, I think it's a good training and I'm starting to see people understand and recognize that. But, you know, I always have skeptical about, you know, some people I'm going to interview the TB 06 guy, perhaps, you know, they're using it in autistic kids, not only Alzheimer's to bind Galactin 3. I think there might be something there that the Galactin 3 in some people is inflammatory and maybe making things worse.

But we'll see if that's ever used in autism. I don't believe doctors as much because they always like to exaggerate their good results. I believe patients, and most patients who've had fecal transplants, even though it's expensive and inconvenient, do get some improvement.

Clinical Results, Speech, and Motor Improvements

I know some people have tried stem cells, but you've been doing excess homes for almost two years now, I guess. And what's been your response rate, humbly, if you can guess?

Like, is there some people that may even get worse, right? Have you discerned what that is? Yeah, I mean, that's a great rate point. I just want to go back real quickly on the fecal transplants.

Dr. Adams has done some amazing work with autism and fecal transplants. And so I do believe fecal transplants is beneficial. In some cases, you have to be really careful where you get your poop from.

So if you're putting poop that's just as bad in, then you're just going to have the same issue. So you have to be, I mean, when you get into that, there are people who are selling it on the black market.

There's people who are literally taking their other children's and making things at home, but contaminated stool is contaminated stool. So I do think that Dr.

Adams has done some great work with the fecal transplants, but I'm a little bit skeptical about FMTs because of the fact that you have to really know where your donor source, the donor being a person who is donating the stool, Where is it coming from?

Do they have any pathogens? Because if their gut is just full of pathogens, then you're just re, the whole concept for fecal matter transplant is you do a gut wipe.

You basically get all the, everything out of you. You can do all major incentives. You do antibiotics and then you repopulate. And the concept is when you're populating, you can change that microbiome.

Yeah, we described the protocol for the Canadian company that offers that, but you know, that aside, do you feel like in your clinical practice, the majority that has some kind of response to what you've been trying?

I know your son has had some pauses for your patient. Yeah. So the number one thing that I am very clear on is that this unfortunately will not take your child from non-speaking to a fully verbal.

And I can tell you that almost every autistic parent wants their kid to speak. And it's just, I'm not saying across the board, some of them just want a good night's sleep, but ultimately we all want our child to be able to speak and advocate for themselves and have the normal lives.

I mean, every autistic parent is just wants what every other parent wants for their child to them to be able to have a normal life and go out. And then we all have to think about those things about If my child is not fully recovered by the time I die, who's going to then take over as that?

caregiver for my child, right? So there's a lot of things that we have to think about as parents. But I absolutely 100% believe in a multidisciplinary approach, but I have seen exosomes do some good benefits, but it's not by itself, it's not going to take your child from non-speaking to fully verbal.

We have had some more attempts at speech. We've had more speech. We've had things like potty training in a week, motor skills improve, fine and gross motor.

But just the way, if you think about the normal development of an infant to a toddler, you know, they're going to, way before they talk, they're going to learn to hold their head up, they're going to learn to crawl, they're going to learn to set up, they're going to learn to walk, right?

That's just all normal development. So certain motor things have to be in place for speech to come. And so I do think that sometimes the expectation is they just want speech.

And so there's some disappointment in the fact that we don't get full speech with them, but absolutely across the board. And I got to be honest, I don't hear back for every parent that we do treatments on a try, but we don't always get complete follow up.

But most of the people are seeing some improvements, but You know, it's unfortunately not going to totally recover your child and not going to give them full speech.

Like so we have had some attempts at speech, more speech, better articulation, but not from non-speaking to fully verbal. As far as my son, I have seen major improvements with him.

He is not fully recovered yet. He is not fully verbal yet, but the child he is today is so much different than the child he was, you know, two years ago before I started doing exosomes.

He can color inside the lines pretty well now. He can cut. His spine motor is amazing. He can cut like fingers, you know, if he's cutting out a hand. He can get every little finger.

He can actually use a computer now, right click on something, print the things out he wants. So lots of motor skills have improved. So we're seeing that across the board more as the motor things.

And I do think that's vital for forming those speech pathways. You know, like I said, when you think about a normal development, They're not speaking right out of the womb.

They're going to do all those other things way before they do get that speech, right? And so, you know, there's, there's, and there's also other things we have to think about that there is problems in autistic individuals.

Often we're about 40% of them have problems with their folate processing on folate. is vital for the brain. You know, you can't have your cognition the way it should be.

You can't truly have your speech the way it should be if you don't have folate in there. And a lot of them have a receptor against folate. So we actually know that if you have a positive THRAT test, for instance, the only way to treat that is folate.

Exosomes are going to do nothing for the folate pathway. So we have to look at that as well. So there's many things we have to think about. So I'm sure you did do some genetic testing to detect any major abnormalities in the SNPs.

Yes. So I did, we did a whole, we did actually the whole exosome sequencing on him and we actually did the SNPs as well. So the whole exosome is actually looking at, so SNPs are your pieces of your genetics where the West is your entire genetics.

So SNPs would, SNPs would be like what makes you have your brown hair and your brown eyes versus somebody over here has blonde hair and blonde eyes. It's those, it's kind of the way the, the double helix lines up, you know, your, the way that those line up to give you what is uniquely you.

but it also affects how you detox things out and how you process like your neurotransmitters. It also can affect things like as a physician, you remember, you know, some people might do better on certain blood pressure medications than others, right?

And so, you know, it would also affect how we do on medications as well. So I did do this whole snip panel on him that it was called Intellex. And it did give me some information, you know, like my son has problems with his dopamine processing, he has a lot of problems with his vitamin D processing, he actually cannot make vitamin D from the sun.

Doesn't matter how many times he's in the sun, he doesn't have the enzyme to make vitamin D from the sun, so we have to supplement with vitamin D. So it definitely was helpful to do that.

It's not required, you know, of everybody who's looking at the autism picture to do all of those in-depth things like that. But, you know, he definitely, like I said, it was definitely helpful.

Unfortunately, I didn't get that magic bullet where it was like, bam, you put this in there and it turned off. Whatever was the problem and we got regret, you know.

Yeah, there's a company called, you and I both know IntelliX DNA. They have a great panel. Also a panel that I did on myself was SNP Nutrition.

Genetic Testing, Hope, and Closing Remarks

And they'll look at 103 genes and formulate for you based on actionable items. But, okay. So, you know, as we wind down, there's, there's people who have affected, you know, family members and.

Once in a while, one every few hundred, you hear these spherical stories, but you're just basically looking to use diet, lifestyle, maybe genomics, maybe some exosomes to make things a little bit better, right?

Do you ever see these incredible like awakenings, like these sort of different person stories, like the nutrition lady was telling me? You know, I went to therapy with a child one time and she took away gluten and dairy and her kids started talking within a week.

And so you always. You always have these stories and unfortunately it's not the norm though. So I usually describe to parents that autism is a marathon, not a sprint.

There are a lot of recovery stories out there but these are usually the parents who are in it for the long run and they're using multiple different techniques, they're using different things, they're addressing different things and they're doing that for years.

Do we have some that just change immediately? You know, you have a few zebras, but most of them, most of the time when I say that, you know what I'm talking about, but most of the time, you know, when you're looking at something, usually it's a horse, right?

And once in a while, a zebra runs by and we have a few of those where we've got those stories where there's a success story where just something simple, but usually it's multidisciplinary and involves several things and it's more of a marathon.

We're looking at, you know, years to try to get to that recovery. Now, can that recovery occur? Yes, I'm not going to guarantee that, but yes, it can.

I'm still, you know, my son is 12. I'm still looking for my full recovery. We've come a long way. We're not fully there yet, but I'm not giving up. You know, he's, he's, we're going to keep going.

We're going to keep addressing things, you know. One of my friends, I remember growing up, they said he was PTT at the time, Autistic Special Schools.

And, you know, we kind of lost contact that, you know, come to Pinedotti graduated, you know, with honors from a four year college later. So, you know, everyone has their strengths and weaknesses.

It's just a matter of supporting them in ways that we can, but you're an amazing mom and an amazing clinician. And I'm glad that you're out there providing hope, but not false hope and results as well.

So. Yeah. Thank you so much. Yeah. All right. Well, if people wanted to get in touch with you, just to explore, how would they do that? So my clinic is called Restore Holistic Center, Restore Holistic Center.

And then my email address is contact at Restore Holistic Center. And you're somewhere in central Florida? Yes. Ocala, Florida. So near Orlando. So very, very close to Orlando.

Okay. Lots of stuff to do if you come to Orlando, you know, lots of, lots of things in Orlando. So. All right. Thank you so much for sharing what you know.

Appreciate it. Thank you so much for your time. I appreciate you. Oh, and I guess I should plug the course. Did you find that it was helpful in some aspects in talking to people when you took the provider course?

It's 12 hours, 20 lessons, and Jody was at 15 of them. Yeah, absolutely. I learned. Yeah, definitely. I learned a lot in the course. I loved it. And you were a great teacher.

I really appreciate your time. And you took the time to actually answer questions if we had it, and you still do. It's very, very helpful. No, it was great.

I learned a ton. And like I said, the reason I even got into wanting to do exosomes was to try to help that disconnect between the brain and the body.

And there's very few things that cross that blood-brain barrier. So it's exciting that exosomes do. But yeah, I learned a ton. So I really appreciate your time on that.

Okay. Hey, have a great day. All right. Thank you so much. All right. Bye bye. Thank you. Thank you for tuning into Dr. Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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