241211_DrThaik

Dr. Thaik

Especially when you're here, you see other doctors and it gets complicated.

Robert

Exactly. Here's some documents for you. Just some new information and then some questions and stuff. But we of course, you know, go through all the stuff that we did together first.

Dr. Thaik

Okay, so Robert is a 29 year old male here for cardiovascular follow-up to review a series of testing that we just had done. A patient came back to see me in consultation in October, complaining of chest discomfort, palpitation, dizziness period. The patient also has chronic fatigue, a diagnosis of myelagic and cephalomyelitis period. He sees a number of other providers for this condition up here. He had an echo and Max Paul's as well as Holter Monitor done with us. Okay, so tell me who are the other providers that you are seeing?

Robert

Yes, specifically for ME/CFS, I see Dr. John Chia, infectious disease doctor.

Dr. Thaik

Is he at an institution?

Robert

His group is called IDMed, but I don't think he's part of a major institution.

Dr. Thaik

And how has he been treating you?

Robert

Good. It's just management as you know, so we're doing the best we can.

Dr. Thaik

What component of this is long COVID? Does he feel like there's an association between your COVID infections or temporarily or not so much?

Robert

There could be a bit of increase in symptoms related to it.

Dr. Thaik

But you've had this diagnosis predating COVID?

Robert

Yes, and I've had symptoms of this for about 10 years.

Dr. Thaik
I'd be curious, and you can ask him this for me and then report it back to me. Has LDN ever come up in the discussion?

Robert
Yes, we were talking about that last time. I've been on some vaults.

Dr. Thaik
You were talking with me about it or him about it?

Robert
With you. And I've heard about it. I've read about it.

Dr. Thaik
Have you discussed it with him?

Robert
I've been on some vaults, but I've been thinking about getting off of it. And I'm thinking about absolutely trying that because I've heard good stories about it.

Dr. Thaik
But I'd be curious to know from his standpoint as an infectious disease doctor, I know that it's used in the long COVID arena along with ibermectin. I'm just curious to know if he has any opinion about it.

Robert
I think he'd be open to trying those sorts of things.

Dr. Thaik
Let me just take a look and see when you were previously with us. 2017, so it's been a while.

Robert
Well, we had a...

Dr. Thaik
Well, I'm not one with the testing.

Robert
Oh, yes, all the testing.

Dr. Thaik
So your ultrasound, the heart looks slightly better. Right? Probably not a huge change, but at 1.01 muscle thickness back then, it would have been considered a little bit thickened, like upper limit normal. Right now, it's squarely like back in the normal range.

Robert

So that changes over time?

Dr. Thaik

Well, we usually see it getting worse over time. But it's getting better when things like blood pressures are managed. So this could have just been a two different technician measurements, etc. But I'm just pointing it out to you that the number declined a little bit. Okay? Everything else looks great. All the other measurements are in the right ranges. Function looks good. You have trace mitral and tricuspid regurgitation, which is normal and physiologic. And the pressures in the lungs look nice and low.

Robert

Great. So no issues there.

Dr. Thaik

From a vascular flow standpoint, I would say to you this is definitely adequate flow. And I use the word adequate because, and actually probably is normal flow for you. The is a little bit of a subjective look because we don't number one quantify it, nor do we have normal ranges for it. It's just a gestalt and it's just a feel and a look. So at the end of the day, when we're looking at the endopatosis, we're looking at blood flow coming out of the tiny little capillaries. So obviously flow is going to be affected from the heart through the large arteries to the smallest vessel. Assuming there is no sign of empathology, the smallest luminescent have the biggest contribution. Makes sense, right? And we're just looking aggregately like do you have nice big massive flow or is this small constricted flow, right? And so you can, as you can imagine, that's then going to be dependent on the patient's just body physique, right? So a bigger or, you know, bigger person's going to have a larger vessel. Smaller person have smaller vessels, right? And prior to really understanding that we always say like women have small vessel disease, right? Or small vessels, but that's because they're small people, right? Smaller people, right? So typically this is sort of what, and I don't want to say typically this is on the upper end of what we see for male. This is probably on the upper end of what we see for females, right? But anything where you can sort of like, you know, like imagine into volume, I think is perfectly fine. As opposed to a vessel like this, where it's clearly pathologic, where it's clearly constricted, you know, a patient with lupus, the so-and-thousand-prinod. And this is actually my study post, you know, multiple balsam COVIDs, right? And I also have collagen vascular disease. So relatively speaking, given that you have the myalgic encephalomyelitis and we know we have some, you know, you've had infections and inflammation in the past, I would say to you that this is good flow. This is more than adequate flow. And then we can see after we constrict it how it can expand it, right? And the reason that this is important to note a point out, right? Like when you have somebody, whether post COVID, post infectious, you know, post EBV and who knows what in your historical history, right? That to you having the myalgic encephalomyelitis, right? And then you have chronic fatigue and the brain fog and so forth. That can be from multiple ideologies, right? So what all this is doing is ruling out small vessel, you know, limited flow as a potential ideology. Sure. Does that make sense?

Robert
Sure, yeah.

Dr. Thaik
So you appear to be having adequate flow. And the echocardiogram is ruling out any large structural abnormality, right?

Robert
Great.

Dr. Thaik
Yep, absolutely. So what you see here from a compliance standpoint, you knocked it out of the ballpark, 100% type one, right? So a sharp up-slope and down-slope meaning that this is a good expansion, right? Like is it like a rubber band that, you know, pulls in one direction, snaps back and pulls back out, okay? And again, just as a representation, you can see the difference between this type of physiology, which is what you have type one versus this is actually my study again, where you can clearly see that the rebound is in there.

Robert
Got it. And this is based off which test?

Dr. Thaik
This is the Max-Pulse test.

Robert
The vascularity?

Dr. Thaik
Yeah, vaso test. Yeah, absolutely.

Robert
Okay, great.

Dr. Thaik
Last thing, this, I do think this is a big contributor to you, right? This is looking at the autonomic nervous system. So we've shift gear and moved away from the vascular structure and looking more at the nervous system. Okay?

Robert
Okay.

Dr. Thaik
So looking at heart rate variability and, you know, and this test looks at, you know, resilience to stress component, right? Using heart rate variability as the base tool, okay? And I think just for the sake of representation, right? Like they have physical stress versus mental stress. I'm not quite sure that I am sold on the science of how they're determining this, right? I think that while an individual or a doctor might postulate physical versus

mental stress, knowing the actual history, right? I don't think that from a biometric standpoint that you can really sort out what is physical versus mental, right? Because anyone who's ever suffered from mental illness or has severe anxiety or depression or any of that stuff, that leads to physical ailments, right?

Robert
Absolutely.

Dr. Thaik
And then anyone who has physical ailments, right? There's no way that that doesn't then reflect into emotional stress, etc., right? So I don't, I sort of view these two as a, in conjunction as an aggregate, right?

Robert
Sure.

Dr. Thaik
Balance against your stress resilience, you definitely have a high stress score, right? So this number is an arbitrary number, but I do, you know, tell people to think of like the speedometer in the car. Are you cruising at 20 miles an hour? Are you going to 80 miles an hour?

Robert
Yeah.

Dr. Thaik
You're sort of going to 80 miles an hour, right? And I think you already knew that about yourself, right?

Robert
Yeah, yeah.

Dr. Thaik
You know, I think putting really concerted effort into addressing this is important, right? And I don't know at this point what you are doing or investing in. Usually when I talk to people, especially the ones that acknowledge that, hey, yeah, this is a factor, right? I do recommend doing a sort of a multi-prong approach, right? And at least in my mind, this is sort of how I layer it, right? I think therapy is, if anything, a luxury. I think it's, you know, just, you know, anyone who can't afford to do it, you know, should, you know, do it, right?

Robert
Yeah.

Dr. Thaik
Because just unpacking, you know, I don't know how old you are.

Robert
29.

Dr. Thaik
You're 29. I'm 60, right? But unpacking your life duration of all the things that have happened to you, right? And then the thought process has gone into that, that then, you know, forms, you know, at least underpinning a framework of how we wire, how we think, etc. Right? I think it's, you know, do have an expert help you to unpack it.

Robert
Yeah, I do actually.

Dr. Thaik
It's just really great.

Robert
I've gone to therapy for years now. It's definitely helped.

Dr. Thaik
Yeah.

Robert
And I've definitely tried to put some more thought into stress relief in general.

Dr. Thaik
Right. Right. Having that cognitive therapeutic, you know, so that's problem number one, door number one. Okay. I definitely do think that in addition to that, for people who are high stress, right, who just like cognitive reshifting doesn't, you know, you know, resolve things, having bio, you know, committing to biofeedback. Yeah. I think it's super important as well. Right. So biofeedback is more, it's still biofeedback still requires cognitive input. Right. Like you still need to understand, you know, why you're doing things that you're doing. Not only that, I think that, you know, things like gratitude and love and all those high energy are part and parcel with any good biofeedback, you know, methodology, whatever you're, you're choosing to do. Right. So, so, but, but the difference between just therapy and biofeedback is that. Now you're getting into a training. You're getting into, you know, it's not just going to see in therapists once a week and then, and then you're sort of, but it's like just, you know, a systematic training. Okay. There's a lot of, I mean, especially in this day and age, there's a lot out there. Right. But the company and the training I still recommend is HeartMath. I don't know if you're familiar with them. Heart H-E-A-R-T-M-A-T-H. They've been around since 1991. Now, when you think about that, John Cabezin and UMass defined the term mindfulness in 1989. So, right when all the, you know, academic, you know, interest in just the value of mindfulness within the medical field, right? Now mind you, mindfulness has been around since Buddha.

Robert
Right?

Dr. Thaik
Of course. Like, so I definitely don't want to suggest that mindfulness was like, came into

existence in 1989, right? But it came into the sphere of academia and health, right? Like, you know, how mindfulness has a huge role within health, right? Define, you know, UMass and then now all the academic centers are doing stuff like that. HeartMath is a private research institution and they have the backing and support of all the academic centers. They are an international worldwide organization. They have had apps and, you know, and tools since the 1990s, right? So I do think that from at least the research standpoint and the data standpoint, they are, you know, way ahead of the newer companies that are coming out with whatever they're coming out with. Sure, sure.

Robert
I'll definitely check it out.

Dr. Thaik
So check it out. And if you like, I'll send you an email about it. I have a couple of coaches that, you know, have worked with our clients and so I can certainly connect you with them. One of them, you can also just go directly to HeartMath and find your own coaches, right? It used to be that was local, so, you know, you need to have one locally now. Yeah, of course, there's remote. Yeah, anybody. We're a HeartMath training center, but I don't have staff anymore to do that. The third prong of this multi-prong thing is an actual, you know, vagal nerve simulator, right? So that would fall more into the just a mechanical, hey, let me increase my vagal tone. Let me try and settle myself down, et cetera.

Robert
Okay.

Dr. Thaik
Okay. And those options are available as well. And I can send you information about a company or product that I like. The reason I like them is that they have an FDA, they're the only FDA-approved device in this arena, right? That's big. Now the actual device that you have access to wouldn't be the FDA-approved device because that one is licensed only for migraine headaches and TBIs. But when that came out through the FDA, obviously doctors like me and other therapists and neurologists started wanting to use it off-label for the obvious indications. And so what the company has done is just lower the energy ever so slightly to take it out of the medical grade into the wellness space and send you information like that. Okay.

Robert
What's the name of them?

Dr. Thaik
GammaCore is the FDA-approved device and then True Vega is the consumer one. And if you are interested in purchasing it, you can purchase it directly from them or if you want to do it through us, what I've done in the past is I purchased 10 at a time to get the volume discount and then pass that discount on to my patients.

Robert

Oh, that's great.

Dr. Thaik
So, but I don't know that I'm going to invest that much this next time around. We sold through those pretty quickly, but like from a financial standpoint, I just don't want to put out thousands of dollars. So we were selling it for 450 to get that 10% volume discount. The next order around I'll probably just do a 25% discount and order less. So you know, probably sell it for about $475.

Robert
Okay.

Dr. Thaik
The other thing that we are also doing is providing a leasing program and maybe not so much for you, but I see a lot of teenagers who probably couldn't afford that output. So I'm just doing the least to own for them. So that's another option. Yeah. I think if I really do like this, I think, you know, my people are purchasing it. Yeah. We sold out last week because everybody was like, oh, I want that for Christmas. I'm going to get my mom to buy it for me. And so, so just sort of went through. But I have another patient who wants it. So I'm going to order. I have to put another order in today.

Robert
Well i'll look into it.

Dr. Thaik
Yeah. I'll send you an email about it. Okay. Just, just shoot me an email back if you want it because I have a feeling we'll sell out pretty quickly again from a halter standpoint. You definitely have some arrhythmia and I'll show you that. Heart rate range from 56 to 114 beats per minute. So a reasonable type range, average of 73. No ventricular ectopic B. So that's the more serious ectopic B. You have 600 super ventricular ectopic B. So super ventricular means atrial. Okay. Top chamber. Ventricular means bottom chamber. Okay. So ventricular ectopic Bs are more serious because they usually reply scarring in the chamber and then the ventricles the workhorse of the body. When it's super ventricular, it might not come from the sinus node, which is the main artery, main command center. But if it comes from anywhere else, guess what? It hits the AB node and then everything else looks the same because it's just a relay center. Right. So the way that I explain PAC to people is like, if you think about the army, 500 soldiers, right? They're marching, they're marching, they're marching and they're singing that tune to make sure everyone marches exactly the same cadence. Right?

Robert
Oh, I see that going.

Dr. Thaik
But one kid gets a little bit out of line. And it throws. And it throws that out of line. Does that make sense? Right? And when we think about the atrial cells, they act as a syncytia,

meaning each cell is individual, so it has its own electrical impulse and can stand on its own. But it works as a syncytia, meaning that the cells are all porous and so the activity goes like a wave through everything. Right? And so when the sinus node is the one that's dominating, right? It's like the commander in shape, like I'm singing the song. You're all along with me. Right? That's just how it flows. Right? So what does that end up doing? So nothing really other than that, you might feel it. Right? If you, you know, and I don't remember your symptoms, whether you said that you've. I definitely felt it. Yeah. So here's what you're feeling. Right? And so in a 24 hour day, this is the distribution of it. Right? So interestingly, you have the bulk of it while you're sleeping. Right? Because this is, you know, here's your, you know, midnight to, you know, 9am, 10am. Right? And it actually settles down while you're actually up and active. Right? Right? Okay. So, so more likely than not, you're not, you're not feeling any of that because you're, you're asleep. Hopefully you're asleep. Right? So you can see here, these are all normal. Right? These are all normal. I'll show you when we see a PAC. These are all normal. So it's just timing. Right? Right here. Right? Here's a PAC. Here's a PAC. You see that the, the, the, the electrical activity looks exactly the same. That's because everything, everything goes exactly through the same halfway. It's just that it comes early.

Robert
You know, when I feel that is a lot of times after I eat, if I eat heavy meals, I can feel that the skip.

Dr. Thaik
Okay.

Robert
So I would say that I'm not going to be eating heavy meals.

Dr. Thaik
It's just a timing issue. Right? You know, caffeine will do this. Right? You know, processed food, sugar, heavy meal. Yeah.

Robert
Absolutely.

Dr. Thaik
That'll do that. Right? Just keep up with your hydration. Okay. So I would say in summary, the only thing that really notable out of this is you got to work on your stress. Stress. Yeah. Absolutely. Okay. All right. Definitely.

Robert
Well, I have a number of questions. I know your time is valuable go ahead and fire away me while I will start sending you a bunch of emails. Absolutely. So, and some of these, honestly, probably already answered through just talking here. So I was thinking about last time when we talked.

Dr. Thaik
Okay.

Robert
So last time we talked, I was wrong. I said that I only drank 32 ounces of water a day. I was actually drinking 64 and I upped that to 80 to 100 daily. My question is, should I be worried about electrolyte balance or anything like that?

Dr. Thaik
And the one thing that we haven't done for you, Rob, and now that I do see your stress score, I'm going to bring you back for it. We do autonomic nervous system testing.

Robert
Oh, you do.

Dr. Thaik
Okay. So it's a more elaborate testing than the Max Pulse. I mean, when we put your fingers through the fingertip, it's getting heart rate variability through the impulses, which is peripheral, right? We do an effort belt. And so we actually do look at heart rate variability right from the electrical circuitry.

Robert
Great. Let's do that.

Dr. Thaik
So we'll bring you back for that. Yeah, go ahead. I actually, well, and then what I was saying to you is I did a webinar recently on dysautonomia. I don't know that you have that, but this will look into that. I'm going to send you a webinar about it.

Robert
That would be great, actually.

Dr. Thaik
I mean, I've definitely been writing about that. But yeah, so. And then this is the other thing that, again, this is me going a little bit more functional. I've been providing or giving resources to do food allergy testing and gluten sensitivity testing to some patients who want to go down that track. I've definitely been talking about that. So I'll send that to you.

Robert
It's been a while. I've had some of that done, but it's been a while since.

Dr. Thaik
Here's the HeartMath one. Do you want me to make an intro to Jennifer or do you just want to reach out to her after doing your own research?

Robert
I'll reach out. I have to.

Dr. Thaik
Her email's in there, okay? So that information's there.

Robert
For sure.

Dr. Thaik
And you can just go directly to the website as well. Okay. And then the Gamma Core. Okay? Great. All right.

Robert
Perfect. So should I consider taking any, like, you know, oral rehydration solutions or anything?

Dr. Thaik
I don't recommend that. I didn't take the blood pressure yet. Let me take this.

Robert
Unless someone is hypotensive, the oral rehydration solution is meant to be oral rehydration, meaning, like, you know, hey, I need an IV, can't get to the ER, going to do an oral rehydration. That's the intent of it, right? And so you really have to think along those lines, right? You know, am I at a level that, you know, I think, you know, IV rehydration support would be beneficial? Because what the oral rehydration solution does, right, is an osmotic, which means it's going to absolutely draw fluid into your blood vessel, right? That's the reason I'm trying to do. It's supposed to save perfusion, volume, you know, blood pressure, right? So when you do the oral rehydration solution, it is critical that you up your fluid intake and you really provide exogenous fluid. Because if you don't, guess where that fluid is going to come from? Your brain, your muscle, you're going to come from your solid organs, right? And then what inevitably it does, if you actually don't have a sodium deficit, is going to pee it out. So when, and patients don't understand the physiology, so they don't appreciate that, when you do oral rehydration solution, if you're not providing enough exogenous fluid, you will actually dehydrate yourself because you're going to pull the fluid that's currently residing in your organs, pull into the blood vessels, and then guess what? The salt has to go out.

Dr. Thaik
Gotcha, gotcha. You're going to get filtered.

Robert
I ask because I'm kind of experimenting with my sodium levels.

Dr. Thaik
So your blood pressure is 124 over 83, you know? So I don't think that volume is an issue.

Robert
Okay, that's actually going to be the next question.

Dr. Thaik
I think you need to just hydrate.

Robert
Got it. That was actually going to be a question if you think that's a whole volume issue.

Dr. Thaik
And then obviously just regular dietary intake, making sure that that's enough to support it. Because sodium just regulates blood volume. I can make anybody hypertensive and I can make anybody hypotensive just by controlling salt and water. So I can't give you an absolute answer, but you have an ability and a mean to address that.

Robert
Sure.

Dr. Thaik
Does that make sense?

Robert
Yeah. Well, I mean if I'm...

Dr. Thaik
So check.

Robert
Yeah.

Dr. Thaik
If you... And this is where I say to people, if you're feeling tired or fatigued, check your blood pressure. If it's low, then yeah, volume and hydration and maybe salt loading. But if your blood pressure is 130 in your fatigue, salt's not the answer. Yeah. Does that make sense?

Robert
Sure. Okay, I see what you're saying. So yeah, based off of what you're seeing here. Yeah, just check the vitals. Okay. I didn't realize you could use blood pressure to...

Dr. Thaik
Yeah.

Robert
I mean, I know for salt, but for volume and blood volume and all that.

Dr. Thaik
Yeah. I mean, it's not the salt, the volume that ultimately determines.

Robert
Right. I mentioned, so we're gonna do this autonomic testing, which is great. We've done a lot of these tests when I'm not particularly symptomatic.

Dr. Thaik
Yeah. So that's the goal, right? When we do these tests, and I guess this is just more of a philosophical thing, right? When we do the tilt and so forth, there are other doctors that will intentionally tell the patient, "Only drink one liter." "32 ounces for the 24 hours prior to coming in." Right? So intentionally make yourself volume-depleted and dehydrated, just so that we can then show that you are volume-depleted and dehydrated.

Robert
Right.

Dr. Thaik
Well, that's... Okay. Well, I'm not trying to make a diagnosis for you or give you a diagnosis.

Robert
Sure.

Dr. Thaik
I'm trying to help you to manage your symptoms and improve your symptomatology.

Robert
Sure.

Dr. Thaik
Right. So I rather... And I don't... I'm not flip side telling you, "Load up with hydration." Right? I just... "How do you come in? However you're gonna come in." Right? Yeah. That's... Now, you said to me, "Okay, yeah, I am dehydrated." Okay, then that's an educational piece. Volume is a big deal. Right? But I have other patients that come in where, yes, they have underlying dysautonomia, but they've managed it well hydrated, they're mindful, they're practicing heart math, and they don't have the physiology. Yeah, I've had to go. Yeah, I know. Okay. So, yeah, I have a couple of patients on William's side.

Robert
Okay. I got a few more questions. Can I email them to you or something?

Dr. Thaik
No. So I will not do that. So just take two more minutes to fire away at your questions and then I'm gonna go.

Robert
All right. Let me pick the important ones then. Should I...?

Dr. Thaik
And I don't mean to be rude about that. I can have a thousand people emailing me questions beyond our visit. You're welcome to set up a second another visit. I don't have a problem with that, right? But we've set up a half hour.

Robert

Sure.

Dr. Thaik

I'm getting tested. We've mentioned it briefly last time for thoracic outlet syndrome. I don't know if you're the one to ask for this, but is there any other kind of vascular testing that I should look into particularly for that? Just talk to the neurologist who are doing that. Okay. Will do.

Robert

And then the last thing, you know, I have wearables, things like my apple watch and I have a chest strap and anything like that. It's worth at all to record information to see in the longer period of time if there's any issue or you think we're all covered here.

Dr. Thaik

Yeah.

Robert

I think we're all covered here. I think we're all covered. Okay. Absolutely.

Dr. Thaik

I'm not worried about it at all.

Robert

Okay. Yeah, so it doesn't sound like it's a cardiological thing I'm gonna stand here for you, okay?

Dr. Thaik

Okay, that's why I said that - We'll be sure to find out, okay?