



MIGRAINE WORLD SUMMIT

INTERVIEWS WITH WORLD-LEADING EXPERTS

TRANSCRIPT



NONDRUG MIGRAINE TREATMENTS THAT WORK

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Introduction (00:05): So, I might introduce these types of treatments in a person who has migraine if they're asking about some kind of supplemental treatment, like behavioral therapy in a patient who is interested in nonmedication treatments, or if I need to add on more treatment to establish better migraine control. Sometimes someone might be on a pill form of treatment and they're getting better, but not all the way. And in my mind I think, well, I could add more pills, but there's already a burden there that the person is carrying. Why not think about nonmedication options like a device, or behavioral treatments, or a vitamin supplement to see if we can move towards migraine freedom?

Wendy Bohmfalk (00:44): We are fortunate that in the past few years, many new treatments have come on the market for people with migraine. But some people do not want to be prescribed another drug. What else can we try? And what is the evidence behind nondrug treatments? Which are effective? And which are a waste of our resources? To answer these common questions, we have Dr. Jessica Ailani. Dr. Ailani, welcome back to the Migraine World Summit.

Dr. Ailani (01:11): Thank you so much. It's my pleasure to be back with you all today.

Wendy Bohmfalk (01:15): Great. We're so glad to have you. Well, first of all, what is the definition of complementary and alternative treatments for migraine? Are these considered nondrug interventions?

Dr. Ailani (01:26): So, "complementary and alternative treatments" is a generalized term that we use to describe treatments that are not considered "standard of care," but they're often used in addition to our traditional therapies, or instead of traditional therapies. And by traditional, I mean those things that we've done tons of research on that you consider a pill that you take every day, or in migraine, an injection you might take monthly or on a quarterly basis. When we're really specific and think about migraine, we think about complementary alternative medicine, or more recently, as we've been describing it, complementary and integrative medicine — an augmentation to traditional therapy.

Dr. Ailani (02:09): So, I might introduce these types of treatments in a person who has migraine if they're asking about some kind of supplemental treatment, like behavioral therapy in a patient who is interested in nonmedication treatments, or if I need to add on more treatment to establish better migraine control. Sometimes someone might be on a pill form of treatment and they're getting better, but not all the way. And in my mind I think, well, I could add more pills, but there's already a burden there that the person is carrying. Why not think about nonmedication options like a device, or behavioral treatments, or a vitamin supplement to see if we can move towards migraine freedom?

Wendy Bohmfalk (02:48): And, you know, where is the science with regard to — and I guess maybe I'll refer to it as CIM treatment if that's OK — where is the science right now with it?

Dr. Ailani (02:56): Yeah, I think the science has really been growing. There are many treatments that have strong evidence in CIM for both prevention and for acute treatment of migraine, but unfortunately, mainly many of these treatments are targeting migraine. I think many of us really hope that some of these treatments will start to look at other types of headaches, for example, tension-type headache or cluster headache, where there's really a high burden of disease. In regards to behavioral treatment, relaxation exercises like breathing techniques can be very helpful during a migraine attack. Guided meditation, progressive muscle relaxation, when



practiced regularly, can really help reduce the frequency of migraine attacks. Biofeedback has strong evidence for migraine prevention. Cognitive behavioral therapy, when added on to preventive medication, can help improve migraine frequency rather than just using preventive treatment alone. So you can already see here we have a lot of really strong evidence for complementary integrative treatment when it comes to migraine care.

Dr. Ailani (03:56): We also have some newer treatment showing that some of these complementary integrative treatments can help reduce disability, which is a huge burden in migraine in particular. Mindful[ness]-based stress reduction is a great example: It's shown to reduce migraine-related disability and can be added on to the treatment paradigm for those that have migraine. We have several neuromodulation devices that use nonmedication options to change the electrical output of pain. These have been [shown to stop] migraine attacks after they [start]. And several have also [been] shown to reduce migraine frequency. They can be effective in adolescence as well, so they can really add to that arsenal of treatment.

Wendy Bohmfalk (04:36): That's great. Well, I can't wait to dive into the ones you've mentioned, and some others as well that have been brought up by our viewers, and really get into some details about them. Before I do, I wanted to ask you one more question though, and that is, you kind of mentioned that you'll bring some of these up with your patients that might need additional help. Is that common, that doctors do bring this up with their patients, or should patients be looking to bring it up in their consultation? How should that work?

Dr. Ailani (05:02): I think it can really vary from healthcare provider to healthcare provider. And what I just want to tell our listeners out there is, don't wait until the provider brings it up to you. I think we have evidence to suggest that it's not always the healthcare provider that will bring it up to the patient, that clinicians might be overwhelmed in a clinical practice. Visits are very short; there might be a lot of things going on; they might be focused very much on drug-related treatments based on their personal training. Also because there's a cost related to complementary integrative medicine, many of these things are not covered by insurance. If a patient during an interaction happens to mention that they feel some of the treatments are expensive, the clinician might hesitate. I know I often will hesitate then to mention CIM treatments because these can have a high burden of cost to the patient, and even though I might be thinking about it, I might not bring it up, because I might be concerned about the cost to the patient. So if this is something you're interested in, I really highly suggest that you proactively bring it up in the consultation, and you don't wait till the end of the visit, that you bring it up early on.

Wendy Bohmfalk (06:10): Well, hopefully, our conversation today will give people a little bit more information they can use to then bring into those consultations and have that informed discussion. So, let's dive in. OK, so first of all, the first one that came up — and by the way, I should mention, we did receive many of these ideas from our viewers, and our viewers also had some specific questions, which I'll get to, too — but one of the first ones that came up was acupuncture. So, if you could kind of walk through each of these that I'm going to mention and describe them, and their level of effectiveness, and evidence that would be great. So, acupuncture...

Dr. Ailani (06:44): So, acupuncture is an older nontraditional (in the sense of like what we do in the United States), but very traditional when it really comes to Eastern medicine's way of treating different disease process. When it comes to headache medicine, and particularly in migraine, acupuncture has been well debated for a long time. And the reason for the debate



isn't that many headache specialists don't think it's effective; it's because it's very hard to prove that something's effective. The minute you put a needle into someone, how do you show something's more effective than the needle itself? When we actually know that needling is an effective treatment for pain? And the minute you put a needle in someone, depending where the needle is inserted and how the needle is inserted, there's a potential you could be releasing inflammatory markers. And there's, in fact, a procedure called dry needling when done in a certain method can actually be effective in releasing pain.

Dr. Ailani (07:41): So this has been an ongoing debate. Thankfully, some of the more recent studies have shown that acupuncture is in fact helpful compared to sham acupuncture. What I often will tell my patients is, "You can't just go to one acupuncture session and make a determination if you think this is helpful or not for migraine, but you must attend a series of sessions." Studies are showing about eight to 10 sessions are needed to determine if it's helpful in reducing migraine frequency. And these are usually twice a week. So, you're really buying into a commitment. Acupuncture is not always covered by insurance, but some insurances do cover it.

Wendy Bohmfalk (08:17): Gotcha. That makes sense. And again, you mentioned there is a cost to some of these, but that's great to know that insurance sometimes covers them. I didn't actually realize that. That's great. Well, what about something that's kind of related, I believe is acupressure? What is that, and how effective is it?

Dr. Ailani (08:32): So, acupressure is using the same idea. Acupuncture works on this idea that the body can be split into these meridian lines, and so acupressure is holding pressure over these meridian lines to relieve pain during certain time points. So there are certain points that you can put pressure over, for example during a migraine attack, and it might be effective — doesn't necessarily help every person, and if an attack is very severe it might not be helpful. But again, in the moment, if the headache is building, it can be a helpful technique to add in. Especially if you're like, "Oh no, I forgot my medication. I'm not anywhere near a pharmacy, I'm in the middle of a meeting and I need to do something to quickly make myself feel better." And you can look these types of acupressure points up online. They're very easy to find and these are very easy techniques to do. For example, one is just holding pressure in between your thumb and like the little web spot here, and you put pressure down. And during an attack as it's building, if you just put pressure gently, sometimes you can feel some sense of relief.

Wendy Bohmfalk (09:36): OK, so one of the most popular things that came up [was] around breathing techniques. So, Lexi, one of our viewers, said that breathing techniques have improved the health and fitness levels of quite a few people that she knows and has read about. Does it also help with migraine?

Dr. Ailani (09:52): So, relaxation breathing actually is some of our oldest evidence that we have to relieve migraine attacks during a migraine itself. We know that guided meditation — which involves deep-breathing techniques and just simple deep-breathing exercises — again, can be very helpful during a migraine attack. Again, it's a quick — kind of a quick and dirty way to start to treat a migraine attack if you don't have any medication around. I don't think it's a great *only* thing to do — especially if you have moderate to severe attacks with nausea that build quickly. But if you're in certain situations, or you really prefer not to take medication — or you have some attacks that start slow, gentle, and mild, and you can start to treat quietly in a dark space, and really work on your breathing — it might be a way to slow the attack down, or even treat some attacks that are really mild, and you can keep them more on the mild side.



Dr. Ailani (10:48): The fantastic thing nowadays about our phones is there are multiple apps available for guided breathing. One example — and this is conflict-free on my half — I just really like Calm, or even Headspace, that have guided-breathing techniques that are very short. And it can give you a five-minute breathing where they'll walk you through how to take gentle breaths and, you know, hold your breath in and then breathe out. And if you're not someone who can do it on your own, it can really help you through breathing techniques. I think the important thing is that it's not just the breathing; it's the environment you place yourself in. So, if you darken the room — you don't stay near the computer, you don't actively try to do breathing while you're typing a paper or answering emails — it's not going to work on its own. So, combine the breathing technique with acupuncture; it might be a really great way to calm an attack down at the start.

Wendy Bohmfalk (11:43): I love the idea too that you can either use it if you have identified that you're in prodrome, or if you're in the midst of an attack, you know, sometimes it's scary, right? And we can almost make things worse. I could see that being a good way to help that reduce some of the severity of the attack as well.

Dr. Ailani (11:58): Or while you're waiting for your medication to kick in — it's that sense of helplessness that starts to build, like, "It's never going to work, it's never going to work." You can control your emotional state and really say, "I'm gonna take control of this," you know, "It's not going to take control of me." And I really work on some of these items, and that's the great thing of CIM: A lot of these techniques can be added together — they're not harmful — and you can kind of build your toolkit to include some of these things and say, "I'm going to create my migraine space that when I'm not feeling well, I can do these things together to really help attack the attack and take some control back."

Wendy Bohmfalk (12:35): And make it a habit too. Just like you said, that's a perfect thing to think about when you're taking your medicine: Here's the three things I'm going to do to go along with it. And adding some other tools onto that would be great. How about physical therapy? How effective is it? What evidence is there behind it for helping with migraine?

Dr. Ailani (12:53): Physical therapy has a lot of great evidence, not in particular for migraine — there are some studies that are looking at when you're adding physical therapy to people with migraine. And all the evidence is centered for people with migraine that have underlying other issues, and I think this is why we apply physical therapy frequently in our clinical practice. For our patients that have associated neck and shoulder spasm, for our patients with associated TMJ, which is very, very frequently seen in patients with migraine: then you're adding physical therapy to really address those underlying issues. For neck and shoulder spasms, you're really adding in massage therapy. We're adding in strengthening exercises oftentimes when the neck and shoulders are tight — which I think is all of us these days with our texting, our watching TV, and our typing; we're lifting up — you're adding massage to kind of relax the shoulders down. And you're adding strengthening techniques so that their lower shoulders are stronger, their core is stronger so they're sitting straighter, and then they have improved range of motion. And this, of course, is going to help a lot of the strain that's coming upwards and can cause headaches that come forward for them.

Dr. Ailani (14:05): And then for TMJ issues — there's a lot of jaw issues and there's a lot of pain that goes up the jaw into the temples. It's actually really important. There's great evidence for one of the treatments for TMJ: Is actually physical therapy. Because they teach them not only manual work to improve movement in the jaw, but they teach self-massage, which is extremely



important for patients to learn so they can massage the jaw every morning, and they massage the jaw every night. And I tell my patients this is essential. It's not just going for a few sessions, but it's a self-massage that you have to maintain and do every day because there is no real better treatment for TMJ than the protection of the teeth — which you're gonna wear your night guard, and you're going to wear all the other accoutrements that the TMJ specialist, the dentist will give you — but to protect that ongoing pressure that's causing the headache, you have to do the massage every day. There's no other way we're going to really help break down that cycle of headaches. So, this is where physical therapy I think is really helpful, and that's where the evidence really lies.

Wendy Bohmfalk (15:09): That makes sense: an indirect benefit, if nothing else. How about occupational therapy? I ran across that one recently in my research.

Dr. Ailani (15:17): Yeah, there's limited research right now for some occupational therapy for migraine, though I will say we've had a student in the past who did some research with us. At meetings I have seen several abstracts about occupational therapy in headache disorders. I really think this is an area of potential growth and someplace that I hope to see future studies. I think there's a lot of areas of benefit here. Many of our patients could really have some benefit of ways that occupational therapy can be helpful. Many of our patients are young and in the workplace and there's ways that adjustments can be made. I think there's lots that can be done where suggestions can be made of how to modify things for the workplace. There's also lots of therapy that can be done on how they're working with their hands — that which, again, it's all that upward movement that can affect the shoulders and the neck as well. So there's many, many things I think that can be done here that can impact headache. We just are really far on this research setting, so I'd like to see more of that in the future.

Wendy Bohmfalk (16:20): Same here. Spinal therapy, or massage too.

Dr. Ailani (16:24): Yeah, so massage I really tie in quite a lot with physical therapy. There's limited research here, again. The research is suggestive that massage therapy, along with physical therapy, can be helpful for people who have some underlying disorder like TMJ, or neck, or shoulder tightness. The one thing I do want to say about massage therapy: Occasionally massage can make headache worse, so you always have to watch; if a patient's getting massage and they feel like it actually worsens the headache, you have to back down or make sure the massage isn't as deep. There isn't a particular type of massage that has shown to be helpful, though. I have many patients that find craniosacral massage to be very effective. It is sometimes very hard to find evidence to suggest it's helpful enough that it's covered by insurance. I haven't seen craniosacral therapy to be covered — again, very costly and very hard to find a provider that might necessarily be trained to do this.

Wendy Bohmfalk (17:19): And what about spinal therapy?

Dr. Ailani (17:21): Yeah, I haven't really seen much evidence for spinal therapy and this is where, again, an area that's kind of, I think, understudied at this point. There's been some limited discussion on chiropractic work, and I think, again, that's something that probably deserves more research. I think there are many chiropractors that have focused in on migraine and have some research that shows that their work that they do can be effective — some of their work focused on spinal therapy. Others who say they can cure migraine — I don't think anyone who says they can cure migraine should be trusted at this point. So, I think there's this really divisive ... those that I think are doing really great work in the chiropractic area where I'd really like to



see more of their research highlighted, and those that are just advertising and I'm not sure what they're up to. So, again, another area that I really would like to see more definitive research in.

Wendy Bohmfalk (18:14): I know that there's research that talks about exercise as being particularly helpful for migraine, and I think yoga, in particular, is one that's mentioned. Can you tell us what is the effectiveness and evidence behind yoga for migraine?

Dr. Ailani (18:29): So, yoga is one of these treatments that probably had the first studies showing efficacy for migraine prevention. I mean, this dates back to when I was in medical school — back a long time ago — and it's really after yoga that all these other exercise treatments really gained evidence for migraine prevention. If you think about it, it makes sense. Yoga is really blending that relaxation, guided breathing, connecting the brain, the mind, and the body all together. So it makes sense that this would have some effect on migraine.

Wendy Bohmfalk (19:02): And I think it's easy to find, too. These days you can actually find specific yoga targeted for people with migraine, right?

Dr. Ailani (19:09): Yes, there's some, I think, people who have migraine who've started up, you know, yoga for migraine, and they've modified poses and I think just made it easier for patients. I would often tell ... depending on the level a patient can do — we have many patients who can just go to regular yoga class and be fine, and some patients who are really beginners — and I tell them to start with gentle yoga, or look up one of these migraine yoga classes online, which are easily accessible now.

Wendy Bohmfalk (19:37): Well, back to the senses. One that comes up, that I could see going either way actually, is aromatherapy. Is there much evidence behind it?

Dr. Ailani (19:45): Yeah, I think it's interesting to say, you know, you would always think smell can be a big trigger for people with migraine, but yet smell can also trigger the right things and make you feel better. Actually, there's some really interesting research that I think needs further development. There was a great — what we call meta-analysis — review of the literature out there, that was suggesting that indeed there is some ... start of evidence for aromatherapy in migraine, but unfortunately, most of that was in animal models. But the suggestion is there's certain types of scents, like lavender, garlic — which was interesting to me, but thinking on it, we actually know that garlic supplementation might potentially be anti-inflammatory and helpful for migraines — so it shouldn't surprise me that if you sniff garlic in the right way, perhaps it hits certain receptors and is helpful.

Dr. Ailani (20:37): And then also things like basil, anise, and peppermint: Some of these aromas, when applied certain ways, can be helpful in reducing migraine. But the problem is — figuring out the concentration and the application was what the difficulty was. So there needs to be further research: It has to be the right potency, and the right application, and the tolerability. It turns out things like lavender oil can be very painful when applied to the forehead at the highest concentration that's actually needed for it to be effective. So it's not what we would think of, like, "Just sniff lavender soap;" it's actually very, very potent. So, I think that's still to be determined. How do you get the right amount actually, for it to be effective? But you can probably buy some of these things on Amazon or online, and I think what you do purchase — many of our patients tell them they do feel it's helpful and I don't find it to be harmful. Again, if it's something that they include in their kit, the things that they find helpful to add in, I think that, you know, it's another thing to consider.



Wendy Bohmfalk (21:43): How about green light therapy?

Dr. Ailani (21:45): Yeah, green light therapy's come out in the last couple of years — one of those surprising findings from research. This is when a study was being done trying to see if blue light was actually effective as a migraine treatment, and they found actually, out of all the lights, green light is something that the brain seems to like the most when it comes to migraines. So there's been a creation of this very special green light that takes away all other light emittances and only emits a green light, and you can use it on a daily basis for a certain amount of time to help reduce migraine attacks. But also, if you're having an attack and you just sit in this green light, just while you're doing other things, it can be helpful during an attack itself. We actually have one of these in the clinic. Sometimes I'll pull it out in our treatment area if a patient's not feeling well.

Wendy Bohmfalk (22:32): OK, great. You touched on this at the beginning of our conversation, but biobehavioral therapy: Could you just briefly kind of touch on this again and describe what it is, and if there's evidence behind it?

Dr. Ailani (22:46): Yeah, so biobehavioral therapy is the idea of using some kind of technique to change the way the brain is working, by either using a breathing technique like we described to change the way your heart rate is working — that's kind of like what we call biofeedback — or that's doing something like what I call “homework exercises” to change the way you perceive things are going day to day, and then change your behavior based on that. So that's something like cognitive behavioral therapy. Cognitive behavioral therapy: You might say, “You know, every time I have a migraine I get so anxious about it, then I get even more anxious and it's hard for me to do anything during the migraine attack. Then I think the migraine is never going to get better and then I get more crippled by that anxiety.” And you've now identified this — we call fear of the actual migraine attack — and then this loop that doesn't end.

Dr. Ailani (23:40): So, here's the migraine that's disabling, then the anxiety about the migraine's disabling, and it's looping together making the migraine worse. So cognitive behavioral therapy might actually work on: Well, what's triggering this feeling of helplessness, what are the things that you can do to be in charge of that feeling, and what are some things you can do to try to prevent that from happening? Clearly, better acute treatment that works faster might be one thing, but there are probably other things that you'll talk about to try to address those situations. And so that kind of therapy can really help you take back that control from that migraine attack so you don't spiral, and then it doesn't make the migraine worse. So, these are just some examples of biobehavioral therapies. Others that are newer in the migraine space coming on [are] mindful[ness]-based stress reduction, where you are mindful of the things around you, and then you mindfully try to reduce how the stress is impacting your day to day.

Dr. Ailani (24:39): And I mentioned how these newer studies are showing that mindful[ness]-based stress reduction, when specifically applied to migraine — so they're techniques that they're specific to migraine itself — has shown to reduce migraine-related disability. And then there's some newer treatment called acceptance and commitment therapy, where you realize that you're having chronic pain, you accept that you might have chronic pain, and then you commit to changing the way you're behaving around this. It's really in its newer phase when it comes to migraine itself. It's been in the pain world for a long time, and the studies are very, very — what I would call in their beginning stages of, you know, how does this work within the headache space? And what kind of impact is it going to make?



Wendy Bohmfalk (25:25): And I think something you said is so important, and that is: We know of course that there's no cure for migraine, but it can be so helpful sometimes if you can just reduce severity or frequency. But even just severity can make a really big difference in our level of disability and our ability to function happily, you know, throughout a day. So you can see why these things could be so important.

Dr. Ailani (25:46): Yeah, and I think just having the tools to deal with the disease itself and, again, the impact the disease has on the individual. Sometimes you can take medications, but there comes a point for many people where they feel like, "I've kind of hit my limit on how much medications I want. I want other things that I can do to help me through this." And that's why having this giant set of activities: Whether it's behavioral techniques, or neuromodulation, or vitamin supplementation, or physical therapy, acupuncture — and then you can realize why maybe the clinician isn't going to bring this all up at once. It is overwhelming how many tools we have. And so, it's important you have a sense of what's out there, and maybe try things one at a time, because doing it all at the same time is also equally overwhelming to you as the individual.

Wendy Bohmfalk (26:40): Fair enough. You did touch on devices — and we have another talk this year that we'll get into more about devices — but could you talk generally about the principles behind them, and why they're such a great tool to have?

Dr. Ailani (26:52): Yeah, so these devices show, not only promise, but good evidence that they can reduce migraine attacks, that they can treat attacks when they're happening, that they really change the way the brain is perceiving pain. So it's really exciting. They come generally with very few side effects, and when they work, they can work well and they don't cause this idea of rebound headache or medication overuse headache. So it's really nice for our patients who have frequent headache who just can't keep taking medication, or for anybody who's kind of sick of taking too much medication, or has side effects, or wants to have some treatment that's not always taking pills all the time. I think this is a really great additive tool that we have for clinical practice.

Wendy Bohmfalk (27:37): Well, the last question I have for you is, what's coming? You know, this is a great area for so many, people are really excited about this, and so what do you see out there in the pipeline? Are there clinical trials going on? How can we get involved? We'd love to see what the future holds in this space.

Dr. Ailani (27:54): Yeah, I think there's a lot of great stuff coming out in the pipeline when it comes to behavioral medicine. They're really studying this, you know, ACT, and they're also looking at mindful[ness]-based stress reduction. I know that there's a lot of apps that they're looking at online, on smartphones and online, for looking at if behavioral treatments can be brought to patients in an app format, and if maybe telehealth behavioral treatment for migraine is going better than in-person. Of course, this is very in the moment, and I think very relevant, because for a majority of people, you're not going to have access to a behavioral specialist who really focuses in on headache as a treatment option where you live. So I think this is finally a great time for us to be able to get this in an app format, and that's really one of the crucial areas that's being studied now.

Dr. Ailani (28:43): There are neuromodulation devices that are really ... in investigative areas right now. I don't know if they're up for discussions because they're very, very early. But what I do tell my patients any time they're interested in clinical trials, I say really there's an important website to remember: clinicaltrials.gov. Any time you're interested in a clinical trial — this is a



public-facing website — that any time a trial is being done [it] needs to be registered in the United States and should be put on this website. And if you're interested in finding out what clinical trials [are] ongoing right now, what's in your area, can you participate, are you a good candidate for this — this is something you want to look up because it'll tell you [about] any trial going on within the space. So you can go and search, "migraine behavioral treatments," and it will bring up all the latest and greatest, and it will tell you per region, and tell you all about the trial, and tell you if the trial is open or not. I think [it] is a really great resource: free, and open, and available to everybody who has internet. So, I tell my patients all the time to go and take a look. That'll keep you the most up-to-date.

Wendy Bohmfalk (29:53): Great. Well, Dr. Ailani, this has been hugely informative. I really appreciate you taking the time to walk us through all these different nondrug treatments today. So, where can we learn more about you, or follow you, or the work that you're doing?

Dr. Ailani (30:05): I'm literally in clinic all the time so, if you want to know what I'm doing, just come visit any time you'd like. I don't have much of an online presence, but I tell my patients: If you want to learn more about what's happening in the field, go to American Migraine Foundation, National Headache Foundation, and of course from the Migraine World Summit, Migraine Again — where I'm actually a contributor. I write a lot of articles for that website, and it's a great resource, I think, for patients and a place to find out what's going on.

Wendy Bohmfalk (30:36): Oh, well thank you; thank you. I know your patients are so grateful to have your time, and we are too. Thank you so much for joining us today on the Migraine World Summit.

Dr. Ailani (30:43): Thank you for having me.