Episode 176: Improving Sleep with Migraine and Painsomnia

Lindsay Weitzel, PhD:
Hello, everyone, and welcome to HeadWise, the weekly video cast and podcast of the National Headache Foundation. I'm Dr. Lindsay Weitzel. I am the founder of Migraine Nation, and I have a history of chronic and daily migraine that began at the age of four. I'm excited to tell you that I am here today with repeat guest and headache medicine specialist, Dr. Fred Cohen. Hi, Dr. Cohen, how are you doing today?

Fred Cohen, MD:
Hi, fantastic. Thank you for having me back.

Lindsay Weitzel, PhD:
Well, thank you for being here. We love it when you're here. You always have such awesome things to tell us. Dr. Cohen is an assistant professor at the Icahn School of Medicine at Mount Sinai. He's a headache specialist, and we love to hear his opinions on all our questions, and we learn so much when he's here. So today we are talking about sleep and migraine.

We are using the buzzword painsomnia. We love that word. So many people like to talk about it, and we're going to cover all things sleep and migraine. One of the reasons I find this topic interesting is that I feel like there are two types of people with migraine and other types of head pain, to be honest. Either we want to sleep all the time, or we have a heck of a time and can hardly sleep at all. I've heard you say that we need sleep in order for our migraine disease to improve. Why is that?

Fred Cohen, MD:
Sleep, let me start with this topic I care a lot about. My background as an internist and primary care provider was always assessing for sleep disorders and whatnot. And in my training, I trained at Jefferson among the illustrious Dr. Silberstein, who taught me, don't ever miss a lot of sleep. It's something we can always correct, and it could really impact migraine. And the reason is that, and he said, I'll never forget, in order to have good headache health, you must have good sleep health. But when you sleep, what it really does is, it's neuroprotective. It's good for our nervous system. The reason why is it rejuvenates brain function. Meaning when we go through our day, thinking, feeling, all that stuff, the brain is recharging itself and whatnot. And it's also byproducts. All these peptides we have that are being used to for our nervous system to go, it's building up.

And what sleep does is, think of it as it's clearing the cobwebs out of the brain, if you will. Because everyone's heard of their lymph nodes, their lymphatic system. What does that do? It gets all the bacteria in your gut out of our system. Well, the brain has a lymphatic system. Think of it as lymphatic system of the brain, almost, and that it is the waste clearance pathway. These byproducts, they're pro-inflammatory, and we've discussed before, what is a migraine? It's an inflammatory event, and that's why sleep is so important. I tell my patients, I can sprinkle all the headache drugs on you. If your sleep is bad, we're still going to have an issue.

Lindsay Weitzel, PhD:
I like that you brought up lymphatics. Quite some time ago, we had a different podcast with Dr. Amelia Barrett, and she talks about glymphatics in the brain being important during sleep, and that's part of how we clear these products that you're talking about during sleep. So, some of our audience members are probably familiar with that. Some people, gosh, I wish I was still like this, but some people, especially those probably with episodic migraine, or whose migraine is not always at an extremely high level pain, can sleep off many of their migraine attacks. I do remember a time when I was a very small child, that I knew that if I could fall asleep for a very extended period of time, eight hours of sleep, that I would wake up and if it wasn't completely gone, I would at least feel significantly better. Is this common?

Fred Cohen, MD:
For a lot of people, yeah, myself included. That's what I always did when I was a kid. And before I got treated for my migraine attacks, I would go home, sleep it off. And again, this depends on the severity of attack. What is the definition of migraine, 4 hours to 72. So, if your migraine only lasts 12 hours, one, you're passing time, but again, the glymphatic system, just as you said, you're getting rid of these inflammatory peptides that have built up. It does have an effect like that. A lot of patients I ask what makes it better? I always ask my patients in your own words, what makes it better, what makes it worse. And a lot do say sleeping. And it's not for everyone. I always say never compare your headaches to other people. Everyone's trigger and solutions are different, but that is a thing. And it goes back to again, clearing those cobwebs out, rejuvenate.

Lindsay Weitzel, PhD:
We brought this up in the intro. There is this buzzword, painsomnia, which I think a lot of us can probably relate to. Do some people literally find that it is the pain or other migraine symptoms that cause them to be unable to sleep?

Fred Cohen, MD:
This is sort of a chicken or the egg. And for some, yes, for some, no, that there are some individuals that their migraine prevents them from sleeping. And some individuals that their migraine has gotten worse slowly over time, that now it's preventing the sleep. So what's doing it? Is it that their headaches have gotten so bad that their sleep's gone bad. But that's also a negative feedback loop. It's cycling itself. And this is, again, why I make such an important part of sleep, that when I've started treating patients, some patients, their sleep has improved. They now are like, yeah, you know what? I find myself able to get more hours. I'm not interrupted. I'm easier falling asleep.

So it certainly could be related in that regard. I wouldn't call it a fake term. Like, obviously, if you're in pain, it's going to prevent you from falling asleep. Migraine doesn't just affect, it's not just pain. It affects many facets of life, not just sleep. It gives people nausea, difficulty eating. I've had patients who were underweight because they were unable to really have a big appetite, eat much food, that by treating their migraine, their weight is now at a healthier level. Their nutrition is better. They're able to do more exercise. You look at old studies, you see it. They only cared about the pain. Now all these trials, they're looking at other aspects, which is great because it was something that wasn't looked at before. They're looking at how burden is impacted.

Now when they do clinical trials, oh, how is this treatment enabled you to do to exercise more. How has this treatment allowed you to go about your quality-of-life activities. When someone brought insomnia up to me, it's not like, oh no, I want to just focus on the pain. All these matter. All these add to the whole equation.

Lindsay Weitzel, PhD:
Let's move into some of these sleep disorders, because there is a higher prevalence of certain sleep disorders in people with migraine. What are the sleep disorders that some of us are more likely to be diagnosed with?

Fred Cohen, MD:
We'll start with insomnia, as we brought up before. Insomnia does have a correlation with migraine. We know this is about a two-fold risk with those with insomnia. And we know that for individuals with migraine and insomnia, there is an association with a higher pain intensity with their attacks, as well as a higher attack frequency and a greater risk that developed a chronic migraine. And it was actually for a while, it was again, thought to be that maybe it was, is there anxiety and depression with the insomnia doing it? And they've actually evaluated that. It's not attributed to those other factors. It was more attributed to like, no, there is an observed association between insomnia and migraine.

And going back to treatment, always treat the migraine, of course, but we send these individuals for improving their sleep hygiene, relaxation training. We do all kinds of sleep therapies, stimulation control therapy. Again, you're treating both the migraine and insomnia. You're not just like, oh, we'll treat one. You go for both, because they're both active. And yeah, you improve one with the other, but you still treat both.

Another common condition I see is obstructive sleep apnea, which I assume a lot of viewers have heard. A lot of us probably know someone with obstructive sleep apnea. Obstructive sleep apnea is essentially, I'm going to use this as an illustration. I'm going to say, this is my tongue. And essentially, when we sleep, the tongue essentially blocks the airway. And since obstruction, that's why it usually is associated with snoring. And it's not just snoring. What I tell people is, especially your partner, if they snore, is there some kind of pattern where they're snoring. They're snoring, and all of a sudden it gets like a loud, like all of a sudden, abrupt, because that's the apneic event. That's really telltale in my opinion.

And it's not just overweight individuals. Everyone thinks only, only weighty individuals could get obstructive sleep apnea. While yes, obesity is common. There's a lot more weight here. Someone who's skinny can be, because again, we're all different. The shapes of our mouths, our tongues, our airways, everything's different. I have had patients skinnier than me, and I'm a twig, be very heavy snorers and be diagnosed with sleep apnea.

Sleep apnea has a lot of risk factors. You can certainly, those who have sleep apnea have a higher risk of suffering from heart attack. It's not just treating for your migraine, there's a lot of other comorbidities that come with it.

The main treatment we know for sleep apnea is that people get what's called a CPAP machine, that's continuous positive airway pressure. It's a mask, and everyone thinks it's like the dreaded big mouth mask like this. No, that's old school. Now the mask could even go on your nose. They're very tiny now,

and the machines are very portable. Like everyone thinks they're getting a big ventilator machine next to their bed. No, maybe back in the 80s and early 90s, but CPAP machines have come a very long way. They're much more like, I've seen, when I was in school, I've seen the old machines, I'm like, that seems awful, but now they're a lot less invasive, and you sleep with that. And we've seen those who have OSA and migraine when they get treated, we do see monthly reductions in their frequencies of pain intensities and even their acute medication.

Lindsay Weitzel, PhD:
That was what I was going to ask. Does treating the sleep apnea actually help migraine. And it's good to know that it can. That's a great thing.

Fred Cohen, MD:
Overall, the studies will show that it does help with the migraine.

Lindsay Weitzel, PhD:
So now that we know that we can possibly improve our migraine by treating OSA, what other types of sleep disorders are common in those of us with migraine?

Fred Cohen, MD:
There's also what's called sleep-related movement disorders, which is where there are these movements that cause impairment of sleep. And these next disorders are not the, OSA and insomnia are the most common ones, but there's still other ones that I like to shed light. Another is circadian rhythm sleep-wake disorders. And these are where, not everyone has naturally good circadian rhythm. If you're able to go to sleep at the same time at 10 p.m. and wake up at 6 a.m. that's fantastic. I certainly, you might have heard the term night owls and whatnot, people who have delayed sleep-wake disorders, where that maybe that they can't get the sleep-wake schedule that they desire, that's required by our social and physical environments.

You also have those who work night shift. I know so many night nurses that suffer from headaches because of their job. They're not doing what's the natural sort of sleep schedule that most of us are used to. And those are obviously very tricky to take care of because, well, I can't be like, quit your job, and they can't always get a day shift. But we do our best to help with that.

And then lastly, I wanted to bring up what we call central disorders of hypersomnolence. And that's where you feel this excessive daytime sleepiness. And it's not necessarily caused by an issue with your sleep or your sleep rhythm, that there's some other feature going on that's just causing this. A very known one could be, everyone's heard of narcolepsy. That's probably, and there is a correlation seen that. I believe the number is 30-something percent of those with narcolepsy could be seen with migraine as well.

Now these are not as common as OSA and insomnia. I've certainly had narcolepsy patients in my panel. They're getting their narcolepsy treated, but we've got to make sure they sleep as well and that we're treating the migraine too to get everything under control.

Lindsay Weitzel, PhD:
That was very informative. I think that if someone is having trouble sleeping, they could probably find something in there that you were mentioning that they can relate to and maybe go discuss with their healthcare provider.

Let's move on to what people like to refer to as sleep hygiene, for lack of a better term. This is a weird topic because some people may find that if they sleep too much on certain days, that their migraine pain or symptoms could get worse.

Fred Cohen, MD:
That's me.

Lindsay Weitzel, PhD:
Yeah, I'm the same way I used to get worse on weekends, partially because I was sleeping in. And then others find, just as we were saying, that if you don't sleep enough. So, it's almost like we can't have any fun or change anything, I always joke. I was like, why is migraine so bad.

Fred Cohen, MD:
I felt I had this big epiphany, like I'm going to be majorly published when I was a resident, because I sort of thought I figured out that everyone thinks it's lack of sleep. I'm like, no, it's not lack. It's not too much. It's change in sleep pattern. So I go to Richard Lipton, a very famous headache doctor. He was a resident of Montefiore. And I go, Dr. Lipton, I figured this out, blah, blah, blah. And he's like, dude, you're like 10 years behind. We already know that. I thought I was going to be like, oh, this is landmark paper. No.

Lindsay Weitzel, PhD:
Do you have any hints for people about sleep hygiene in case they haven't already figured this out on their own about themselves.

Fred Cohen, MD:
So, sleep hygiene, when I identify sleep issues in my patients, even when I was a primary care provider, the first thing to go for is sleep hygiene. It's very common in our society that we all have bad sleep hygiene. And I won't be saying all these things and I'm just as guilty. I have this whole handout I give the patients about it. And sleep hygiene is essentially making sure that we are creating a good sleep cycle. So, one is, and these are things that go over my patients having a regular bedtime. You don't want one day going to bed at 10, then 1 a.m., then this. You want a regular setup schedule.

And same thing about waking up. I make sure, even on the weekends, like on my phone, my phone will go off always around 8 or 9 a.m. I don't let myself sleep in. The only reason I would let myself sleep in is if I had something that was keeping me up late. Keep that schedule maintained, even on days that you're not working. And the thing is, everyone's sleep schedules are different. I know individuals who only need six hours. I know people who need nine. I mean, that's fine, everyone's different. You got to be able to feel alert and energetic to the day and get what you need to accomplish that.

But you want to keep this routine schedule. A lot of people try to do exercise at night for bedtime. No, two hours before bed, you should not be doing very stimulating things. Exercise should be in the morning or the afternoon. You should have a comfortable temperature. No temperature extremes. I know people who, I like a cold bedroom, it shouldn't be frozen. It shouldn't be way too hot. Going back to things not to do before bedtime, no eating meals two hours before bedtime. It may be a very light snack, but you shouldn't be having dinner than going to bed in an hour.

There should be no coffee, caffeine, stimulants, stuff like that, soda, chocolate after 3 p.m. Overall, avoiding the use of tobacco. Of course you shouldn't smoke cigarettes in general, but again, later in the day as well, because nicotine is a stimulant. There should be no alcohol consumption late at night, 3 to 4 hours before bedtime. That could do it as well.

Now, let's talk about when you're going to sleep. The bedroom should only be for sleep and sex. Meaning there shouldn't be other, like, I tell people when I get so many looks, no TV in the bedroom. I don't have a TV in the bedroom, but no TV in the bedroom. Because the thing is, you need to mentally, psychologically, that the brain needs to be aware when you go in there, this is for sleep. When you're on your phone, which that I'm guilty of, and doing a bunch of stuff in bed, your brain is knowing, oh, I'm going to bed I'm going to use my phone, versus I'm going to bed, the brain is like, no, we're going to enter sleep.

And if you have difficulty falling asleep for more than 30 minutes, get up, leave the room. Do a quiet activity for a few minutes. Don't do a stimulating activity, like don't start cleaning up things. Don't start reading a book, You're just sitting in a room for a couple of minutes and then come back. You're just changing the environment briefly, but you don't want to do something stimulating. And lastly, don't clock watch. Meaning like, okay, I've been up late, what time is it? Don't do it, never clock watch.

Lindsay Weitzel, PhD:
I love everything you said. I agree with it. But you said no chocolate before bed, and then you lost me.

Fred Cohen, MD:
No chocolate before bed. No chocolate before bed.

Lindsay Weitzel, PhD:
Anyways, so thank you for all that advice. That is actually amazing advice. I'm not the best sleeper, I have to admit. I love hearing what everyone has to say about helping us to sleep. But let's move on to some of the treatments that we can look into for our sleep problems. I think my favorite topic in this area is melatonin. Can melatonin help us both with our sleep and with our migraine?

Fred Cohen, MD:
So let's start. Melatonin, produced by the pineal gland, is our sleep regulator, if you will. We hear about melatonin. When people bring up sleep, I bring up sleep hygiene, and I bring up melatonin. Because this is not a prescription medication, doesn't really have any side effects, and I don't have too much worry.

But also, what about for migraine? There is evidence that it does work for migraine, because melatonin, it works on a lot of things in our brain. And one thing that it works on is regulation of different neural pathways, different neurotransmitters, and ways our brain communicates. Like, for instance, we know that it works on dopamine, which we know dopamine is related to the migraine whole pathophysiology. Like for listeners who take Reglan, Compazine, that's a dopaminergic drug. That's why it helps with migraine.

We also know that it tones down glutamate. Glutamate is the energy of neurons. And hence, it stops these pain nerves from talking. We know it also suppresses the release of CGRP, calcium gene-related peptide. That's how your like Amovig, Emgality, Nurtec, Ubrelvy, it focuses on CGRP. We know melatonin is operating there as well. And that it also helps with GABAergic receptors. Those are things that tone down glutamate. That's how gabapentin works.

So that's where sort of the whole mechanism we believe that melatonin is acting on in terms of migraine. So it's not just helping sleep, there is some evidence that it can help also treat migraine. There are individuals who have recommended it, not because they have sleep issues, but that every single treatment plan that I tailor for my patients are unique because every headache is unique.

And when someone comes to me, I don't want to be like, all right, prescription drugs. It's like, I get a sense, I get a vibe. And I have patients who at the beginning do not want to try prescription medication. That's fine, that's their choice. And I respect that. And I bring them, all right, here are some non-prescription options. I bring up magnesium, vitamin B2, coenzyme B10. I bring up melatonin as well. The thing, it needs to be evidence backed, and these are drugs that do have papers and studies that have proven some efficacy with it.

Lindsay Weitzel, PhD:
When it comes to melatonin, I actually do think this is an interesting, interesting fact that not everyone knows that, yes, it can help with your sleep, and yes, it might even help with your migraine. In case someone is wanting to try it, can you tell us what sort of dosages have been shown to be effective with melatonin?

Fred Cohen, MD:
I know it comes in a store in 1, 3, and 10 [milligrams]. I usually start off with 3 and then 10 [milligrams]. Anything more than 10, then we're getting a sleep doctor involved. Typically starting out with 3 milligrams.

Lindsay Weitzel, PhD:
Okay, interesting. And it comes, you can get it, I think here we get it at Whole Foods, it's all over the place.

Fred Cohen, MD:
Everywhere, yeah. The cheapest one, like I have pays to go to GNC and drop 70 bucks. I don't have a sponsorship. I would love Costco to give me a sponsorship. I don't want to pay for the membership anymore. Like Kirkland, give me the, send the check. I would love to have that on my disclosures. Like it just says like Costco there. I'm proud of that. You guys got Pfizer, I got Costco. My point is you don't need

to, there are websites. I wish, I remember there are websites, I can't remember the name, that do rate it based on the ingredients, but I do preach, don't go to some fancy store and drop a hefty bill on this stuff.

Lindsay Weitzel, PhD:
Let's talk really quick about prescription sleep medication. I know that there are some doctors that when they are concerned that their migraine patients aren't sleeping, they will prescribe medication. What are the options there? And I guess the more important question is, at what point should we know to ask our doctor about this option?

Fred Cohen, MD:
The answer to that question is referring to a sleep specialist. I do not prescribe prescription-grade sleep medication. If it's gotten to that point, then I think it warrants a proper sleep evaluation. Also, if I ever am concerned about sleep apnea, I also need sleep medicine because they are the ones that do the sleep study tests to confirm that there's apnea going on. But when we're evolving prescription-grade medications, that's when I'm usually getting a sleep medicine specialist involved. These treatments I'm going to talk about, they are useful, but they have side effects. Some can be, I'm not going to use the word addicting, but a pattern. And while their use is necessary-

Lindsay Weitzel, PhD:
You can become dependent on them? Is that what you're saying? Are you saying you can become dependent on them? Habit forming?

Fred Cohen, MD:
Habit forming, that's the word I wanted. But they definitely have their use. So common ones we hear is benzodiazepines, like Valium, Xanax, Ativan, Clonopin. Benzodiazepines have a lot of uses from panic attacks, anxiety, et cetera. You have zolpideme, which is Ambien, which is a very common one. You have, I'm going to pronounce it wrong. It's eszopiclone. It's Lunesta, great trade name. Whoever gets paid to make trade names, you deserve all the money. Yeah, Lunesta is a good one. Another common one is trazodone, which is I would say a very common one, which I'm on the fence about, because there are some reports that the metabolite of trazodone can actually cause headache. It's a common side effect. So it's like, all right, is the trazodone making things worse or not? But those I would say are the most common sleep medications.

Lindsay Weitzel, PhD:
Now just out of curiosity, if we do end up on one of these medicines to help us sleep and we're a person with migraine, is this something we generally end up on forever, or is this a short-term help?

Fred Cohen, MD:
Just like with all migraine medications, no prescription I give is like foreever. And we get things under control. When things are under control, try to wean off. Same thing with the migraine meds. When I start somebody on any migraine medication, after a year of everything's great, I say, hey, let's try to tone down your Topamax, or maybe let's try to stop Botox. Because my goal is not to have people on medication forever and things change over time.

And it's the same thing with sleep medicine. Generally, that it's not just medication what they do, they do their own kind of behavioral therapies as well. And the goal is that the pill, the medication's given in the in the immediate form so you can get sleep, but then work on doing these behavioral therapy modules so that you could sleep without the medication. So yes, over time, they would want to wean off. No one wants to keep you on these drugs forever.

Lindsay Weitzel, PhD:
Okay, great. So, we've covered over-the-counter options, we've covered prescription options, we've covered going to a sleep specialist. Is there anything that you would like to add to this topic of sleep and migraine?

Fred Cohen, MD:
Sure. When it comes to solving your sleep, there's a lot of ways to go about it, like white noise. I'll admit that for myself. There's a fan near my night table, and that's good white noise for me. I know there's a bunch of apps. Calm is the first thing that comes to mind and whatnot, and all those are fine. The only thing I don't like is people who say I need to fall asleep to the TV. In my opinion that's stimulating. I don't ever recommend that. No TV in the bedroom. Same thing with music, but white noise, repetitive stuff, all that's fine. Wearing an eye mask. There's a lot of different ways to go about it. And just like what I say with headache treatments, what works for some, might not work for others. When it comes to figuring this out, that's why going to a sleep specialist, just like there's people who only treat headaches, there's people like that for sleep.

It's a fellowship that they do that's a whole board of certification, that this is their training. Again, it's not just medication. There's a lot of behavioral therapy also involved, because the end goal is not to keep your medication.

I always say partners are the best historians, because when I ask about snoring, I always ask the partner, does your partner tell you, you snore? Because again, well, if you snore, it doesn't mean you have sleep apnea. It is suggestive. So there are the for anyone listening or know anyone, the predictive factors for obstructive sleep apnea is snoring, obesity, having high blood pressure, and being a male. And also having a very wide neck. I believe it's a circumference of 35 centimeters.

That’s actually the questions that I ask on my visit. Because if you get enough points, then it's like, okay, there's the greater the risk. If it's too high, it's like, you need to have a study. Because again, it's not just migraine. Like we talked, of course, in this all about migraine, but obstructive sleep apnea and sleep disorders in general, untreated, carry a lot of comorbidities, and it causes a lot of problems for you down the road.

Lindsay Weitzel, PhD:
Well, I'm very glad that we covered this, because I think years ago, I mean, I have a what, a 45 year history of chronic migraine, et cetera. Maybe this is my life, but I think years ago, one of my doctors just randomly mentioned something about sleep. And I laughed at her, and I was like, sleep, people with migraine don't sleep, birds don't walk, fish don't fly, people with migraine don't sleep. What are you talking about? It didn't even occur to me that I should be expecting myself to really sleep.

And I have worked on it, and I do sleep more. I'm not a perfect sleeper, but historically it was not even something I focused on because I just blamed my pain, and that was who I was. And it didn't occur to me that I should make it one of my goals to sleep better.

I hope that everyone got a little bit of something out of this information. And thank you so much for being here. And I'm glad you're so passionate about this topic. And thank you everyone for joining us on this week's episode of HeadWise. Please join us again next week. Bye bye.