Episode 210: Menstrual Migraine | Causes, Prevention, and Treatment

Lindsay Weitzel, PhD:
Hello and welcome to HeadWise, the videocast and podcast of the National Headache Foundation. I'm Dr. Lindsay Weitzel. I'm the founder of Migraine Nation, and I have a history of chronic and daily migraine that began at the age of four. Our topic today is menstrual migraine, and it is one of my favorite things to discuss. I am super excited to tell you that I am here with Dr. Susan Hutchinson. Hello, Dr. Hutchinson, how are you?

Susan Hutchinson, MD:
I'm doing great.

Lindsay Weitzel, PhD:
I have asked Dr. Hutchinson to be here today because she's a headache specialist and the founder of Orange County Migraine Headache Center in Irvine, California. She is sought after for her knowledge related to women and headache medicine. And I'm very excited because she is so smart about this particular topic, and I know we are all going to learn so much listening to her today. Dr. Hutchinson, I cannot wait to pick your brain and for all of us to learn your views on menstrual migraine. Can we just start by simply defining menstrual migraine and discussing the various ways that we talk about it?

Susan Hutchinson, MD:
Absolutely. And one of the reasons I'm so passionate about this is I really did family medicine and women's health, doing many, many well woman exams way before I became a headache specialist. I was starting to see this association. Many women would have a headache with their menses, and we often lumped it in as part of PMS or PMDD. And we thought it was normal or premenstrual tension headache. And boy, I really began to see that, wait a minute, this is not just a headache. I began to say, this is my brain. I would first of all say that any woman who most of the time has a headache around her menses, and it's pretty predictable, it's probably menstrual migraine and not what we call a “period headache.”

I think it really deserves to be independently treated and not just thought of as PMS. So first of all, if you're a female listening to us, about 60% of women with migraine have an association with menses. And specifically menstrual migraine means that at least two thirds of the time, about 66% of the time, you get a headache within we call the negative two to plus three window. What do I mean by that? Starting anywhere from two days before menses up to three days on day three of your period. And when you talk about a negative two to plus three, day zero is the first day of bleeding. So, there's about that six day window. And if you find that gosh most of the time I get a headache during that time and it's disabling, usually it's going to fall under the umbrella of menstrual migraine.

And I don't know if you know this Lindsay, but as you probably know, we now break it down into two types. Some of you that have menstrual migraine, the only time out of the month that you get a headache is just with your menses. That's a smaller percentage, and that would be called pure menstrual migraine. Versus much more common is menstrual related migraine. Sometimes we call that

MRM. Yes, you get migraine with menses, but you get it at other times of the month. Let's say from stress, lack of sleep, change in barometric pressure. And that's the majority of women with menstrual migraine.

Lindsay Weitzel, PhD:
I think that's an important way to distinguish it because some of us we just have migraine almost all the time. But then we notice it's worse or slightly different around the time of our period, etc. We can have all sorts of variations. My main question to you right now is do people who have menstrual related migraine and people who are pure menstrual migraine, are those two types of migraine usually treated the same with the same types of medications, or are they two completely different animals?

Susan Hutchinson, MD:
No. You can treat them with the same medication. They're not two different animals, but the woman who only has migraine with menses, she doesn't need something every day as a preventive. For that woman, you could really target a short-term preventive and a short-term acute strategy, because she may only need medication that one week a month. The more common scenario is where women have triggers outside the menstrual window. You need to take a more comprehensive approach. And even if you get more intense in your treatment that week leading up to the period, you still need to have treatment for other parts of the month as well.

Lindsay Weitzel, PhD:
So, there are lots of options and ways to attack this and treat this. And I really and truly, because I know there's so many women out there who just live with it and think it's part of their period. And I really want to throw these options out there, so people start to understand there is something they can do, and they go to their health care provider, etc. So, I'm not going to hold off from letting you talk about as many of them as we possibly can. Let's just start with what, let's go with the ways that we can treat this type of migraine. Because there's hormonal ways, there's different medications, and there's even some natural ways, meaning like vitamins etc. So, let's go ahead. And I'm just going to let you get started and I'll queue you with different things as we go along. Go ahead.

Susan Hutchinson, MD:
Why don't we focus on non-hormonal first. I like to start with what I think is the easiest and the least expensive. And that would be, unless you have a contraindication and you can't take an anti-inflammatory like Aleve or Motrin or ibuprofen, think about starting an anti-inflammatory, whichever one you prefer. And start taking it maybe twice a day for several days before your anticipated menstrual migraine and then keep taking it until the end of menses. This could have an additional benefit for those of you that have menstrual cramps. So, getting an anti-inflammatory on board. And again, that's more of a short-term preventive. You're still going to need something for breakthrough. But why not do something inexpensive like that.

The other thing that's very inexpensive and evidence based is magnesium. Now some women may be taking magnesium all the time, all month long, but if you want it to target and get that extra prevention around the time of menstrual migraine, you could start anywhere from maybe 200, 300mg twice a day. And again, you could start taking that. One of the studies that was published to look at starting to take

the magnesium just during the second part of your cycle. So, we think of day one, again as the first day of bleeding. And that first half of the cycle is called the follicular. And you're still pretty far away from your menstrual migraine.

But after ovulation as you start getting close to the period, that's when you want to ramp up things like the magnesium and the anti-inflammatory. Again, I start with those, because those are the least expensive. Because as much as acute treatment is good, wouldn't it be better to either prevent it in the first place or at least minimize the severity. Now you need to also have in your toolbox what are you going to take when the headache itself hits.

Lindsay Weitzel, PhD:
Let's go back to the anti-inflammatory, whether it's ibuprofen or Aleve. If it's ibuprofen and you are taking it twice a day starting two days before you expect the pain to start, how much should you take each time?

Susan Hutchinson, MD:
You know, it depends on your tolerability. If you have no tolerability issues, I like to go with the higher doses of things because then it would be more effective. For the ibuprofen, I would say 800mg every eight hours. Take it with food. If it's the naproxen, take about 500mg every 8 to 12 hours. Again, this is assuming that you don't have issues with an ulcer or any indication where you couldn't take that dose or take an anti-inflammatory.

Lindsay Weitzel, PhD:
And then when it comes to the magnesium, there's so many types out there. Is there a specific type of magnesium you would recommend in this instance?

Susan Hutchinson, MD:
Yeah, that's a great question. I tend to like magnesium glycinate. I think it's a little easier on the GI system. The most common side effect of magnesium is diarrhea, and so women that tend towards constipation, they sometimes don't mind that side effect. But if you already have issues with diarrhea, just be very careful and you can try different forms to see what works best. But in general, I would say magnesium glycinate tends to be better tolerated. And of course, magnesium is over the counter, so you don't need a prescription for it.

Lindsay Weitzel, PhD:
So, we're starting our ibuprofen two days, possibly twice a day, two days before we expect the pain to come. And remind me again with the magnesium, you can either take it every day or you said starting which day of the cycle.

Susan Hutchinson, MD:
I would say about halfway through the cycle. So maybe around day 15, because you want to if you want to get it on board before you get close to that menstrual migraine. And then again, we need to think about acute treatment. Let's say you've got your prevention on board with the with the nonsteroidal, the magnesium. What are you going to take when you get a headache. Hopefully you either have a triptan or a gepant or a prescription NSAID. And I like things that hopefully you can take during the day. They don't make you sleepy and you can get back to work. So, a triptan maybe it's your sumatriptan or your rizatriptan. If it's a gepant, we have a nasal delivery called Zavzpret. We have the oral, we've got the Nurtec. We have Ubrelvy. And then we also have a new oral form of an anti-inflammatory called Elyxyb. And they're little bottles. Each bottle is one dose. But I recently did a little more research about it. It has very quick onset of action compared to your traditional over-the-counter nonsteroidal. And it looks like it has good bioavailability. So, the point is that if your triptan or what I call your gepant like Ubrelvy is not kind of kicking in fast enough because menstrual migrate can be quite severe, you might think about asking your provider for this Elyxyb. But whatever you have, just make sure you also have acute treatment that you can tolerate for that breakthrough headache, even though you're trying to prevent the menstrual migraine.

Lindsay Weitzel, PhD:
The triptans and the gepants that you just mentioned, by the way, gepants are some of the newer medicines that are out there for migraine, in case people have not heard of them, you can go ask your doctor about them, and also the Elyxyb which is a newer nonsteroidal anti-inflammatory. These are things you could take once the pain is there. But is there any caution about taking the Elyxyb if you are already taking these non-steroidal anti-inflammatories preventively that you just mentioned?

Susan Hutchinson, MD:
I don't think it would be an issue because we're not talking every day of the month, you're just targeting. Having said that, if you were going to take the new Elyxyb, that you probably would not need the anti-inflammatory that day. But let me also mention a very cost-effective strategy you can do either with the magnesium and the non-steroidal or instead of. There are two long acting triptans. One is called frovatriptan and one is called naratriptan. You may know this as Frova and Amerge. But they both have studies looking at preventing menstrual migraine. And in the studies, they compared placebo once a day for prevention or twice a day. The twice a day using frovatriptan or naratriptan worked a little bit better.

But why it's so exciting. Lindsay, unlike in the past, is these are generic now and they're not that expensive. But if I have women that say, well, gosh, Dr. Hutchinson, if I take a whole bunch of them to prevent menstrual migraine, I'm not going to have enough for the rest of the month for my other migraines. I say, look, let's see where we can get you the best cash price. And I'm finding Cost Plus, also known as the Mark Cuban Pharmacy, very inexpensive generic prices. And I think all over the country there's also GoodRX or even just Costco or pharmacies. So just remember that if you need more triptan in there or whatever medication, if you need more than your insurance allows, think about asking what the cash price is if it's a generic.

Lindsay Weitzel, PhD:
So that's frovatriptan and naratriptan are often used to prevent menstrual migraine. And that's because they last a long time.

Susan Hutchinson, MD:
Right. So, they're going to be better positioned as a preventive strategy compared to your shorter acting triptans like sumatriptan and rizatriptan.

Lindsay Weitzel, PhD:
And so, is the strategy with those to also start taking those about two days before you expect the migraine to show up?

Susan Hutchinson, MD:
Yes. And again, that's where the fear comes in, I'm going to run out. So just keep in mind the cash price is not that expensive. So yes, you want to start them about two days before your anticipated menstrual migraine.

Lindsay Weitzel, PhD:
And do you keep taking them throughout your cycle?

Susan Hutchinson, MD:
Typically, you want to continue to take them until your period is done. Because if you stop them too soon, your menstrual migraine could reemerge and they're very safe and well tolerated. So, I would generally say take them until you're done with your menses.

Lindsay Weitzel, PhD:
This granular information is just so important, I think, for those of us because some of us just suffer so much and just assume it's part of life. So, what is the next type of strategy for a menstrual migraine?

Susan Hutchinson, MD:
Well, the next would be hormonal. And this goes back to the theory that the drop in estrogen just before menses is probably the number one trigger. There's other things going on, but that's probably the number one. And Lindsay, years ago there was a very famous investigator, a Dr. Brian Sommerville, and he took a group of women that had menstrual migraine. He said, just before their menses, during their vulnerable time, let's see what happens if we give them estrogen injection versus progesterone injection. When estrogen was given in the form of estradiol intramuscular, it delayed the onset of the menstrual migraine until the estrogen level was dropping from the injection. When progesterone was given, it delayed the onset of menses, but it did not delay the menstrual migraines. So, the theory is the drop in estrogen is the more important trigger.

So why is that important? Well, if we can even out that drop, either minimize it or prevent it, maybe that can be a great strategy. And this is particularly if a woman needs or wants contraception. And that's pretty easy for women who have migraine without aura, meaning they have less stroke risk. They don't have high blood pressure They don't have a clotting disorder.

So, for your women at low the risk of stroke, things like continuous low dose birth control pills. Or there's a vaginal ring called the NuvaRing, instead of taking it out every three weeks and having a week free, maybe put a new one in every three weeks. So, the idea is, I think we used to think women need to have a cleaning out or a period every month. Guess what? We don't need to. So, think about keeping that estrogen nice and even. And that can really, really make a difference for some women in preventing menstrual migraine.

Lindsay Weitzel, PhD:
So this is something that I know many women do for their menstrual migraine. However, there are some published risks that I know, that across the country some people are quite concerned about. It can be a controversial issue. What are the risks that have been associated with the use of hormone therapy or oral contraceptives to either stop cycles or help control menstrual migraines, particularly in the setting of migraine with aura?

Susan Hutchinson, MD:
Yeah, there's a big difference, I think, in approaching migraine with aura versus migraine without aura. And just to make sure we're on the same definition with your listeners, aura refers to the reversible neurological signs and symptoms that occur in about one third of those with migraine. But to be aura, it must last at least five minutes. And I find there's way overdiagnosis. Sometimes women think blurry vision or sensitivity to light. That's not aura. We're talking with aura, you're seeing things that other people aren't seeing. You're seeing zigzag lines. Or maybe you're not seeing things like you have absence of vision and part of your visual field or tunnel vision. So, it's more apparent than just blurry vision or sensitivity to light.

So, make sure if you think you have aura that it gets properly diagnosed. And it can also be things like slurred speech, numbness or tingling on one side of the body. When you think about aura, think about kind of scary symptoms that may seem stroke like, but they go away typically in less than an hour. Women that have migraine with aura are at higher risk of stroke. That's the scary thing because when you add then an estrogen containing form of contraception to a woman who already has more stroke risk, that that’s the concern with that increasing her stroke risk more than a woman who had migraine without aura.

Having said that, there's a difference between relative risk and absolute risk. So, the absolute risk, Lindsay, is still low. Now the American College of Ob-Gyns, the World Health Organization, a number of organizations feel that estrogen is contraindicated in women that have migraine with aura. The International Headache Society that I'm a member of has said that estrogen, you can use it with caution and those that have simple aura.

So to me the approach needs to be completely different for a woman who has maybe 1 or 2 aura a year, visual aura, it lasts 20 minutes, no other risk factors. There's a big difference between that woman versus a woman who's having five or six migraines with aura in one month.

Lindsay Weitzel, PhD:
So, this is controversial. It can be difficult I think sometimes for women to even find a provider to discuss these things with if she has migraine with aura. So, what can we do to minimize these risks? Are there lifestyle factors to cut out if we're a person using estrogen and we have migraine?

Susan Hutchinson, MD:
Oh, absolutely. And this is good for all of us. I think to minimize that additional risk please, please do not smoke. In fact, if you were a smoker, I would not even prescribe estrogen containing birth control even if you have my migraine without aura. So smoking, please do not smoke. Number two, make sure your blood pressure is under good control. Hopefully you're getting checkups, whether it be a well woman exam, a physical. And it's not that expensive to even have a blood pressure cuff at home these days. Make sure you know what your cholesterol is. What are your what we call your lipids. What is your cholesterol, your triglycerides. Really know your blood sugar as well. Diabetes can also be a risk factor for stroke. And also, not being overweight, exercising. So, think about we can't control the fact that we have migraine with or without aura. That was in most cases genetic. But what can we control is the risk factors or lifestyle. That is going to do a great benefit in reducing your risk of stroke risk.

Lindsay Weitzel, PhD:
And I know I've heard people ask this question before, do you monitor these patients for hypercoagulable states or anything like that before prescribing estrogen for them?

Susan Hutchinson, MD:
It depends on the woman, Lindsay. I think certainly if there was a personal or family history of stroke, if there was a personal history that they've had a blood clot. The other thing is women that have a lot of miscarriages, and they have trouble keeping a pregnancy. Sometimes they have an underlying clotting disorder. But if a woman has migraine with simple aura, a couple episodes a year, no other risk factors, she does not need a workup. But there is a certain type of blood test that can see if you're at risk for stroke and have different clotting issues. That I think that type of workup is probably reserved for women that have either frequent aura or have these other risk factors, like family or personal history of stroke.

Lindsay Weitzel, PhD:
I have a lot of questions about this because I know that across the country, a lot of women are suffering and maybe don't have someone like you to talk to about this. So, we really want to pick your brain. So, so be patient with me. I have a lot of questions for you. Do you monitor people after giving them estrogen to see if their aura increases or decreases? And if it does, does that mean anything medically?

Susan Hutchinson, MD:
Well, that's so important. Yeah. If I have a woman with migraine with aura and we've decided for that particular woman, we want to go with estrogen containing contraception, I'm going to tell that woman please keep track of your aura. If they increase in duration or frequency, you need to reach out to me,

because then we need to reevaluate. And we may need to switch to a progesterone only form of contraception. But having said that, I've put countless women who have what I call migraine with simple aura, and sometimes the aura actually goes away or gets better because they're overall migraine control is better, which is really exciting.

Lindsay Weitzel, PhD:
That's part of why I asked that, is there are so many people who say, well, I was worried because I did have some aura, but then once I improved by stopping the menstrual migraine, I didn't have aura anymore. So, it is such an interesting idea.

This is an important question that so many women have when it comes to the type of estrogen, ethinyl estradiol, that's in birth control pills, etc. versus the type that might be in some of these compounded formulations, whether they're creams, patches, etc. Is one of them perhaps better for us if we have menstrual migraine. Do you ever prescribe the compounded estrogens? This is just such a big question that I think everyone has, and it's kind of hard to find people to address it.

Susan Hutchinson, MD:
Yeah, that's a great question. So ethinyl estradiol, sometimes we call it EE, that is a synthetic estrogen. That is not the same molecules produced by our ovaries. But that is the most common synthetic estrogen in your birth control pills. Now why is that. Well, it has to be stronger, relatively speaking, compared to what your own ovaries are producing, because you have to shut down the eggs being released because you're trying to prevent pregnancy.

So ethinyl estradiol is synthetic. And it basically, I want to say it doesn't completely shut down the ovaries, but it kind of like puts them to sleep. It takes over. Now versus estradiol, which is the most commonly type of estrogen that is in these hormonal preparations like estrogen patches and pellets and troches. That's different because that is bioidentical. It's the same estrogen as your own ovaries produce. So, what you're doing there is you're not shutting down the ovaries, you're adding to it.

A great example would be, I had a woman years ago. She didn't need contraception because her husband had had a vasectomy. So, what we did to prevent menstrual migraine is we went with what we called add back estrogen. So, I prescribed an estradiol patch that she wore, and she changed it twice weekly, just for the week leading up to her period and then the week into her period. It didn't stop the bleeding because it was estrogen, not progesterone. So, the big difference is ethinyl estradiol you pretty much need if you want to prevent pregnancy. But there could be more side effects to it because it is something versus estradiol, which is more an add back but a more natural way to be given estrogen.

Lindsay Weitzel, PhD:
Another question I have is it sounds like you as a headache specialists do prescribe this for your patients for menstrual migraine. What advice might you have for women who may not be lucky enough to have a headache specialist who does that. Who should they go to? Because I do know that there are a lot of people that have trouble finding someone who can give them advice or prescribe these types of things.

Susan Hutchinson, MD:
Well, I would hope that let's say you're seeing a male neurologist or you're seeing someone that's doing a good job with the headache, but they're not comfortable with the hormonal angle. Maybe calling several OB-GYN groups. Or it could even be a female type practice. It could be a family physician. It could be internal medicine. But there's more and more women providers that really want to address that and are willing. And if you're willing to pay more and be in one of those concierge type practices, wow, that can be a great benefit. That's where you pay a monthly or yearly fee, but those providers have a limit of how many patients they'll see. Maybe they see 6 or 7 a day. If you're able to afford that and you picked a female in that type of model, I think that could be a huge help.

But let's say you can't afford that. Then why don't you call and maybe even visit some of the women medical groups in your area and see if there's some that have a special interest in that. Because I think there's those providers out there. It's just a matter of finding them.

Lindsay Weitzel, PhD:
And many physicians out there often quote some studies that were done quite some time ago on birth control pills and migraine with aura that showed a lot of this stroke risk. Can you comment on some of that data, what it found, and whether it currently applies to our situation?

Susan Hutchinson, MD:
I don't think it applies anymore because those were done on birth control preparations that had a much higher amount of ethinyl estradiol. Most of those were done, the amounts were 50 micrograms, some even 80, some 35 micrograms. We now have preparations that are only 10, 15 or 20 micrograms of ethinyl estradiol. And studies have shown when you look at the different doses, more recent studies, that the lower the amount of the ethinyl estradiol, there's much less stroke risk. And there is no stroke risk in progesterone only. So, Lindsay I think we really need more studies done that only focus on these new lower dose preparations. So, I think a lot of providers are thinking about studies done years ago when much, much higher amounts than what are currently used.

Lindsay Weitzel, PhD:
I think that's really important to get across in an episode where we're discussing menstrual migraine and using hormones that perhaps prevent it. So I think it's important that everyone hears that. So what else do you think? Is there anything else that you think we haven't covered that the audience needs to hear when it comes to the topic of menstrual migraine?

Susan Hutchinson, MD:
I think to know that you're not alone. That the majority of women that have migraine do happen with their menses, and that for most women, these are the worst migraines out of the month. They often are more likely to wake up with nausea and vomiting. They're more likely to have more disability, to have it last several days. And I think part of the reason it's the underlying trigger. It's not like you eat a hot dog and then your headache goes away because you don't eat the hot dog the next day. You're at that vulnerable time in your cycle. So I guess my encouragement is to try to find a short term preventive strategy to minimize the break through severity. It's fluid. Work with your provider and see

what works for you. But definitely try to employ something as a preventive. Could be the magnesium, the nonsteroidal. But get something started two days before your anticipated menstrual migraine.

Lindsay Weitzel, PhD:
Thank you so much for being here for this important topic. You really are so knowledgeable about it. And I think our audience is going to be super grateful. And I just want to thank everyone who listened in, and we're grateful for our audience. We're grateful for you. And please tune in on our next episode of HeadWise. Thank you. Bye.

Susan Hutchinson, MD:
Thank you.