Episode 228: Can Jaw Pain Trigger Migraine? Understanding TMD

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've a history of chronic and daily migraine that began at the age of four. I'm excited to be here today with one of our favorite guests. This is headache medicine specialist Dr. Fred Cohen. Hello, Dr. Cohen, how are you?

Fred Cohen, MD:
Hi. Thanks for having me again.

Lindsay Weitzel, PhD:
Thanks for being here. Dr. Cohen is an assistant professor at the Icahn School of Medicine at Mount Sinai, and he is the founder and director of Headache Intervention, a private practice headache clinic located in New York City. We are always happy to have him and he does a great job answering all our questions. And we are going to try and ask some really complicated questions about TMD today.

Our topic is temporomandibular disorder [TMD] and how it relates to migraine and head pain. So, Dr. Cohen, let's begin by explaining what TMD refers to, because we used to hear people often refer to it as TMJ, but TMJ actually refers to the joint self. Correct?

Fred Cohen, MD:
So when we say TMD, TMJ, first let's start with the TM portion of this acronym, temporomandibular. So, the temporomandibular joint is right here. It's a swivel joint that allows us to move our jaw up and down, chew, etc. It's a very small joint, but it's very complicated for its size, a lot of things going on in there.

The terms TMJ pain and TMD pain, they sort of are interchangeable. But the more proper term, I would say is you have a temporomandibular dysfunction or disorder, which again, there's a lot of variations. People can have TMD pain from bruxism, which is grinding your teeth. There could be an issue with your bite. There could be your masseter muscles, which are here, are overpowering. There could be a structural issue, a nerve issue, etc. So, it's an umbrella term covering a lot of different etiology.

Lindsay Weitzel, PhD:
I do think this is a great educational moment because we are often told all the time now that migraine is a neurological disorder, which makes us picture that something is going on in our brain or central nervous system that's beginning the process. But then TMD is sort of a structural issue. Can you please explain to us how this structural problem can lead to worse migraine for us?

Fred Cohen, MD:
Sure. So let's start with a foundation—migraine. Migraine is a condition in a nutshell of neuroinflammation. Migraine is a lot more complicated than that of course, and we don't fully

understand the picture of it. You figure that out, you'll win the Nobel Prize in medicine. We do know neuroinflammation is the root of it.

What could cause that? A lot of things could cause it. And one of course could be structural issues and pain coming from your jaw because this is the front of our faces. The sensation comes from the trigeminal pathway, which is part of what we feel with migraine. So an issue in this area could be sending signals and then triggering a migraine attack.

Lindsay Weitzel, PhD:
So how might someone in the audience know if their jaw is contributing to their migraine disorder? What are some of the signs?

Fred Cohen, MD:
So it's always first interesting, chicken or the egg, like what came first, me having TMD pain or me having migraine. And that can only be distinguished between you and your provider. But typically, TMD pain is pain that you're having in an area of your jaw. It could be with chewing. It can be with talking. It can be even with swallowing. Some patients notice it when they're yawning.

Because it could be a lot of different causes of it, there could be a wide variety of it. To keep it sort of simple and neat, any pain that you're feeling in your jaw area, and if you notice that was this happening before I had migraine or my migraine is worse from it, it sort of hints that there's a kind of relationship going on.

Lindsay Weitzel, PhD:
Now, if someone is suspecting this is a problem for them, what type of healthcare practitioner do you recommend they go to?

Fred Cohen, MD:
So this also could be a bit confusing, for this area is shared by a lot of kind of providers. Headache medicine specialists and I have experience dealing with TMD issues. There's of course dentists. There's oral maxillofacial surgeons. So when you want to start this out, first and foremost, your primary care doctor is always your center pin in your health care. You can always bring it up to them to get a proper referral. Your dentist is definitely an appropriate person to bring it up to. Dentists do train on this. There are some dentists that identify themselves more of a TMD specialist. Also, it could be evaluated by an orthodontist.

Oral maxillofacial surgeons are sort of what I say the more advanced tier, because generally they're more equipped with surgery. Surgery is, I would say, a more grave option. I have seen some individuals get surgical treatment usually when there's a structural issue with their jaw in the TMD area, but that's typically reserved for cases that are refractory for other treatments.

Lindsay Weitzel, PhD:
Are there also medications people use to prevent this type of jaw pain.

Fred Cohen, MD:
So there's a whole variety of treatments. The most common before medication is actually mouth guards, which is something most people probably have heard of, a lot of different kind of what we call oral splints, oral applications that either a dentist or orthodontist can provide, things like Invisalign, braces, night guards, etc. Because what they're doing is they can be adjusting your bite. They can be preventing bruxism, the grinding, because when you grind your teeth, it overpowers your masseter muscles. And that can lead to TMD pain. So there's a variety of different applications.

Medications, similar, neuro painkiller medications that are used in migraine can be applied. And also, believe it or not, Botox (onabotulinumtoxinA) is a common treatment as well. That's something that I do a lot for my patients.

Lindsay Weitzel, PhD:
Now if people are able to improve their pain in their jaw or improve their TMD, does their migraine often improve too?

Fred Cohen, MD:
It can. I will never back up a claim that I'm unable to, because there's only one way to find out is to treat the TMD pain because there's no test we have to be like, oh, yeah, your migraine is definitely being affected by it by your TMJ. But it is common that, yes, treating the area will improve the migraine because, again, this is a source of inflammation. And again, you still want to treat this of course, because it's not fun having jaw pain. But different patients will react and have a different sort of response to their migraine.

Lindsay Weitzel, PhD:
And a real quick question about surgeries. It seems to me that people used to often refer someone with jaw pain to surgery, and it doesn't seem to happen as often anymore. Is that true, or is that just something that that I happen to see?

Fred Cohen, MD:
I would agree with that. I don't see surgery often. When it comes to facial pain, and I'm looping in TMD, trigeminal neuralgia, conditions like that, surgery is typically not a first option. I've only seen it in individuals who have failed multiple different kinds of treatment that I always want to call a last resort because surgery is a very serious treatment option.

Lindsay Weitzel, PhD:
Is there anything else you'd like to add to this topic before we go today?

Fred Cohen, MD:
Yeah, just that this condition, like I said, because it shares a common territory between multiple kind of providers, you typically have multiple providers collaborating together. In my practice, I have a lot of patients I share with dentists and orthodontists where patients are getting from the dental providers some kind of oral splint. They're getting yearly jaw X-rays and treatments for them.

And then they're coming to me for onabotA (Botox). Because what the Botox does is, so Botox, I'll show with little Fred over here. I'm going to start doing ventriloquism stuff. Is that we do, onabot injections along the masseter muscle as well, a bit in the temporalis. And what that does, is it, typically in these TMD disorders, your masseter muscle, which again, is running here is overpowered. It's just overacting. It tones it down. And that allows the oral applications to sort of be more effective and also reduce your pain. The goal in long term is not to always have these injections, but to allow the oral applications your dental provider is giving you to be more effective. Every time patients follow me, I always give an examination of the masseter because we want to see if it's getting too small. Too small, now you can have difficulty chewing, which of course we will cause a new problem.

Lindsay Weitzel, PhD:
Well, thank you so much for telling us the answers to all these questions that we have. And thank you, everyone for joining us today. Please join us for the next episode of HeadWise. Bye bye.