MIGRAINE WORLD SUMMIT

TRANSCRIPT

INTERVIEWS WITH WORLD-LEADING EXPERTS

TENSION HEADACHE OR MIGRAINE? DIFFERENCES AND MISDIAGNOSES

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Introduction (00:05): Sometimes people start out with very clear episodic migraine, but then as the frequency of attacks increases, the severity of the attacks can decrease. So you end up with this picture that looks like maybe tension-type headache a lot of the time, with more severe attacks that look more like migraine. And almost always in that situation, the underlying pathophysiology — so the cause of the entire headache disorder — is migrainous. It's just that not all of the attacks are getting all the way up to the migraine severity. But studies have shown that when you treat the whole headache picture as migraine, people get better.

Kellie Pokrifka (00:56): According to the International Headache Society, tension-type headache is the most prevalent neurological disorder worldwide, affecting over 2 billion people. And yet it's often so dismissed, undermined, and undertreated. To help us learn more about this and to figure out how we can better diagnose, treat, and prevent tension headache is headache specialist Dr. Rebecca Burch. Dr. Burch, welcome back to the Migraine World Summit.

Dr. Burch (01:20): Thank you so much for having me again. It's such a pleasure to be here.

Kellie Pokrifka (01:25): We are so happy you are here. So first of all, what is tension headache?

Dr. Burch (01:30): Tension headache, it's more properly called tension-type headache, is one of the primary headache disorders. Basically, these are headaches that are not caused by a specific underlying other condition or disease. They are just kind of arising of their own accord. Migraine is another primary headache disorder, and tension-type headache is one of the other really common ones. And as you said, it's the most common headache type experienced worldwide. Tension-type headache is different from migraine. The classification criteria are different. It can be shorter or longer than migraine, so it can last as short as 30 minutes or it can be as long as up to seven days, and it is by definition not a severe headache. So, whereas migraine is moderate to severe, the pain of tension-type headache is mild to moderate.

Dr. Burch (02:27): It's most often on both sides of the head, or bilateral. It often has a pressure-like quality to it. It can be kind of tight, squeezing. It's usually not pounding or throbbing as migraine more typically is. And unlike migraine, which is usually worse when people are up and moving around, tension-type headache doesn't typically get worse with movement. And in fact, many people with tension-type headache actually feel better if they get up and do some activity. It kind of helps to release the pain a little bit. And then the other thing is that, again, we compare it a lot to migraine, but unlike migraine, which has all those sensory hypersensitivities associated with it, tension-type headache doesn't have those. So as soon as you get nausea with a headache, you should sort of be directing your thinking more towards migraine and less tension-type headache. Some people with tension-type headache do have either mild sensitivity to light or sound, but you can't have both, and it can't be severe. So a different picture from migraine.

Kellie Pokrifka (03:35): That's so interesting. You can have one, but not the other, for photo- and phonophobia. What about osmophobia?

Dr. Burch (03:43): That is not part of the classification criteria for either tension-type headache or migraine. But as soon as I start hearing significant osmophobia, it really makes me think more about migraine because tension-type headache doesn't have this sort of sensory processing component that is such a hallmark of migraine.

Kellie Pokrifka (04:04): I've heard the term headband headache. Is that relevant here?

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Dr. Burch (04:07): Yeah, that's a very common description for tension-type headache.

Kellie Pokrifka (04:10): Are there ever any sinus symptoms like the pressure or like a band around there?

Dr. Burch (04:15): People do report sinus kind of location for pain with a lot of different headache types. And I think that sinus pain — the sinus location of pain — is often one of the real diagnostic challenges in headache medicine. It is not part of the criteria for tension-type headache, or for migraine for that matter. And I know we're not talking about migraine today, but very often, people who have sinus symptoms actually have migraine, about 80% of them do.

Kellie Pokrifka (04:47): And with migraine we talk a lot about the genetic components. Is that relevant here for tension-type?

Dr. Burch (04:54): I don't think that it's been studied as well in tension-type headache as it has in migraine. And you're going to hear that over and over again today. The fact is that we just don't know as much about tension-type headache as we do about migraine. I think there is a genetic component, but again, when you have a condition that is experienced by such a large percentage of the population, it is really difficult to sort out how much of that is environmental and how much of that is genetic. But yes, I do think there is a genetic component to it, as well.

Kellie Pokrifka (05:30): What about stiff neck or neck soreness or shoulder soreness, anything like that?

Dr. Burch (05:35): In my clinical experience, almost everybody with tension-type headache tells me that they have at least some degree of neck stiffness or neck pain. And you can get that very often with migraine, as well. So I don't think that the presence of neck pain is diagnostic for either tension-type headache or migraine, but it is an incredibly common fellow traveler.

Kellie Pokrifka (05:58): If it's usually mild, why should we care about it?

Dr. Burch (06:01): That is a great question. And it is really interesting because in preparation for this discussion, I was really thinking through my clinic and who I have seen in the last couple of weeks, the last month. And I think I've maybe seen one person with tension-type headache. Certainly in headache clinics, we don't typically see people for episodic tension-type headaches, so that's tension-type headache that's occurring less than 15 days per month. Sometimes we see people with chronic tension-type headaches, so if they're having headaches more than 15 days a month, and if it's not responding to typical treatments, maybe we will end up seeing them in headache clinic. But the fact is that, as you say, tension-type headache is by definition less severe and has fewer associated symptoms than with migraine.

Dr. Burch (06:55): I think the most important thing to know about tension-type headache as a concept is that so often people get diagnosed with it when they actually have something else. There's just this assumption that having headache is kind of a normal experience. And I think to some extent it is; when people get sick or have some other provoking factor, headache is pretty common. But at the same time, if I tell anyone if they are bothered by it, if they're bothered enough to notice, then they probably need to take it seriously and find a strategy that works to not be bothered by them anymore.

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Kellie Pokrifka (07:38): So, who is affected by tension-type headache? Is there the sex ratio that we see in migraine?

Dr. Burch (07:45): Yeah, we do see a little bit of that sex prevalence ratio in tension-type headache the same way we do in migraine. But where in migraine it's much more common in females compared to males, in tension-type headache the ratio is more of a 1.2 to 1, so it's a little bit more common but not dramatically more prevalent in females compared to males. And that changes when we get more into the chronic tension-type headache picture, where you do start to see that being more prevalent in females or women, depending on how the study was done, compared to males or men. And in terms of who is affected by it, otherwise, it kind of looks a little bit like migraine in some ways. The peak prevalence is around age 39 or 40, so kind of similar to what we see in migraine.

Kellie Pokrifka (08:43): All right. You've talked a lot about chronic versus episodic tension-type headache. Can you go into that?

Dr. Burch (08:49): Yeah, so in the headache world, we have this kind of weird use of the word "chronic," where instead of meaning a long time, it's a function of frequency. So, the 15 days per month is kind of the cutoff. Less than 15 days per month is considered episodic; more than 15 days a month is considered chronic. And just like in chronic migraine, we believe that people with chronic tension-type headache probably have a higher burden of other comorbidities, and it's maybe more refractory to treatment; there might be more disability associated with it. And again, the fact that it's more prevalent in females or women is also kind of what we see in chronic migraine, as well, and maybe reflects that there's just a population who's vulnerable to very frequent headache, whether that's presenting as chronic migraine or presenting as chronic tension-type headache.

Dr. Burch (09:52): One thing I do just want to point out, because this is, I think, another source of diagnostic confusion, is that sometimes people start out with very clear episodic migraine, but then as the frequency of attacks increases, the severity of the attacks can decrease. So you end up with this picture that looks like maybe tension-type headache a lot of the time, with more severe attacks that look more like migraine. And almost always in that situation, the underlying pathophysiology — so the cause of the entire headache disorder — is migrainous. It's just that not all of the attacks are getting all the way up to the migraine severity. But studies have shown that when you treat the whole headache picture as migraine, people get better.

Kellie Pokrifka (10:51): So, a lot of us with migraine, we will sort of be hesitant to take our medication because we say something like, "I don't know if this headache is going to end up in a full-blown migraine attack." Are we misusing the language there? Is it always a migraine attack, or could a tension-type headache eventually turn into a migraine attack? Does that make sense?

Dr. Burch (11:17): Yeah, that does make sense. And I think what you're kind of getting at is this question: Can tension-type headache and migraine exist at the same time, and does one turn into the other? And that's really where I think asking this question: What do the most severe attacks look like? Because — and I will just take a step back and say that our thinking about this, I am reflecting a kind of U.S. perspective on this question. I know that in Europe, they tend to diagnose tension-type headache and migraine separately and coexisting much more often. And in the U.S., we tend to think that if somebody has migraine, then probably all of their headaches, like I said, are kind of migrainous in pathophysiology. It's just that some of them are getting all the way there, and some of them are not.

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Kellie Pokrifka (12:10): What are some common comorbidities of tension-type headache?

Dr. Burch (12:14): In this regard, I think it looks a lot like migraine again, which contributes to that diagnostic confusion. Anxiety and depression are highly comorbid with tension-type headache. Poor sleep and insomnia. We already talked about back pain and neck pain as part of that also.

Kellie Pokrifka (12:35): What are the risk factors for tension-type headache?

Dr. Burch (12:37): Anxiety, depression, poor sleep or insomnia, back pain, neck pain, and trouble relaxing.

Kellie Pokrifka (12:48): And what about risk factors for the chronification of tension-type headache?

Dr. Burch (12:52): Yeah, they're pretty much the same as the risk factors for tension-type headache in general, but the addition of medication overuse, which of course we talk about all the time. But somebody who is taking medication more than eight days a month — or if it's just a simple analgesic such as acetaminophen, more than 15 days a month — that is a risk factor for chronification as well. Overall, poor health is another one, so people who report that they're just kind of not feeling well overall or not healthy people, they're also more likely to have chronification of tension-type headache.

Kellie Pokrifka (13:32): What are your thoughts on medication overuse headache and how it can affect either tension-type headache patients or migraine patients?

Dr. Burch (13:38): It's, I think, a little bit controversial because we know that in people who have very frequent headache and use a lot of acute medications, that when those acute medications are stopped, only about half of them actually see a dramatic reduction in headache frequency. The other half of them are simply doing the best they can to treat a really severe headache picture. And when we're withdrawing those medications, we're taking away a treatment that works.

Dr. Burch (14:14): I always say that somebody has medication overuse and may have medication overuse headache, but that in the way that I think about it and the way that I write it, I don't necessarily automatically pair those things. I think in somebody who is using a lot of acute medications and has very frequent headache, I think starting prevention is a reasonable idea. And we have evidence from the recent MOTS [Medication Overuse Treatment Strategy] trial showing that starting prevention and talking about withdrawing overused medications is just as effective, and I personally think it's more humane. So that's my approach.

Kellie Pokrifka (14:57): Can things like head injury lead to tension-type headache, or, really any musculoskeletal injury?

Dr. Burch (15:03): Yeah, that's a really good question. In the headache classification, when somebody has a headache after a head injury, we tend to code it as a secondary headache. So we think of this as a headache that is secondary to a head trauma of some kind, and then we don't think about necessarily tension-type headache because tension-type headache is by definition a primary headache. So the way that I would write that if you were looking at one of my notes would be chronic post-traumatic headache with tension-type features.

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Kellie Pokrifka (15:37): What are some treatments for tension-type headache?

Dr. Burch (15:39): The treatment of tension-type headache: It depends on how frequent it is, as is the case for any other type of headache. Tension-type headache very often responds to over-the-counter treatments or simple analgesics. So things like acetaminophen, or NSAIDs like ibuprofen or naproxen, have really good evidence for the acute treatment of individual tension-type headache attacks. Aspirin is another potential strategy. And I think, by the way, that's another reason why people with tension-type headache may be less likely to come to our offices is because the treatments that work for it are available over the counter, are pretty widely available.

Dr. Burch (16:25): If those things don't work, then the next step is usually trying to bring on board some nonpharmacological preventive strategies. So, things like cognitive behavioral therapy (CBT), biofeedback, maybe like mindfulness-based stress reduction. You can do massage, physical therapy, or occupational therapy, acupuncture. I really like craniosacral therapy (CST). It doesn't have a lot of evidence behind it, but it's very gentle, and so a lot of my patients find it to be a good approach. But thinking about all of that and then thinking about lifestyle management, again, sleep is really important. So, looking at that.

Dr. Burch (17:08): And then, if that doesn't work, we go to the pharmacologic prevention. The best evidence there is for tricyclics like amitriptyline. And then, there were a couple of studies that supported the use of mirtazapine, which is kind of an atypical antidepressant. There's also some evidence for venlafaxine. And then kind of moving on to the next tier, a muscle relaxant called tizanidine. And that's what I do in clinical practice. For the most part, I use something like amitriptyline, and I often try muscle relaxants, as well. And then, because we don't know as much about tension-type headache as we do about migraine, and because there's so much overlap between the two, if those things don't work, we often just end up then going back and using the migraine pathway and seeing like, OK, maybe it's actually migraine; we're just missing it, and let's see if they respond.

Kellie Pokrifka (18:10): And when you said muscle relaxants, would that be an acute treatment for tension-type headache or preventive?

Dr. Burch (18:15): You can do either. I mean, I think the tizanidine study was a prevention study, so it was done every day with the goal of reducing the frequency of attacks. And again, I want to be clear about what's supported by evidence in the literature and what is just kind of, what I do. But I very definitely do sometimes give people a prescription for a muscle relaxant to take if they're feeling tension, and we know that that muscle tension — and we know that that tends to lead to a headache the following day. Sometimes I will say, "OK, you can take this the night before and maybe stave off that headache." Or, "At the end of the day, if it's still lingering and you want to get rid of it, you can take this before bed." Most muscle relaxants are fairly sedating, so they're not great for daytime acute treatment, but sometimes at night they can have a place in the treatment plan.

Kellie Pokrifka (19:11): You also mentioned craniosacral therapy, which isn't talked about too much. Can you explain what that is?

Dr. Burch (19:16): It involves making subtle adjustments to the musculature and the soft tissues of the skull base and the neck, and then the sacral, lumbosacral area as well, with the idea of balancing the tension and muscles in that area. So again, I don't practice it, and I don't think it's

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been well studied. But my experience is that some people with headache, if you send them for massage, it actually can sometimes trigger headache. It can be very aggressive. And the thing about craniosacral therapy is that it can be much more gentle. And so, I just find that, in my experience, patients often tolerate it better, and they're able to relax more and get more benefit from it.

Kellie Pokrifka (20:06): Can physical therapy help this at all?

Dr. Burch (20:09): Physical therapy, I think, is really important. It's important for people with a lot of different kinds of headache, but particularly with tension-type headache because there's such a strong relationship to muscle tension and that neck pain and back pain that happens. How does poor posture contribute to headache or things like that. And so, that's an area where I try to recognize that I am not the expert, and if there's any question of muscle imbalance or things like that, physical therapy is often really useful. And I find that, many of my patients, rather than focusing on the neck itself, focusing more on posture and ergonomics, and things like that can make a really big difference.

Kellie Pokrifka (20:54): What about physical activity or exercise? Can that be used to prevent tension-type headache?

Dr. Burch (20:59): In terms of exercise, I think exercise is really important for stress release. And I think particularly people with tension-type headache feel better when they get regular exercise — as long as it's not making the muscle tension worse. They need to do it in a way that makes things better, and not makes things worse.

Kellie Pokrifka (21:19): Do you feel that a lot of posture and eye strain can be related, and can that contribute to tension-type headache?

Dr. Burch (21:26): Yeah, I do see this, and again, I think this is one of those areas where it's important to ask about potential contributing factors. And the list can be long, and I don't think there's really great evidence for any of these things. I think often eye strain is blamed for all kinds of headaches, and so I think it's worth asking questions like: “What do you think is going on?” Or, “What do you think is causing your headache?” Or, “Have you noticed anything that makes the headache worse?” And people will often tell you, "Well, I think I'm straining my eyes," and in that situation, there's absolutely no harm in having somebody get a good vision exam. And I'm a really big believer, not just in tension-type headache but in any kind of headache, in looking for all of those little things that might be contributing and just kind of addressing them one at a time.

Kellie Pokrifka (22:21): Can tension-type headaches have any visual disturbances?

Dr. Burch (22:24): They really shouldn't. It's not part of the criteria. But if it's a really prominent part of the headache, I would say that's something to go and get checked out. And then certainly you're talking about visual disturbance — you had asked about eye strain: It should not be from the headache or related to the headache. So if that's happening, I would not use tension-type headache as a reason to explain it.

Kellie Pokrifka (22:49): If someone is having continuous or chronic tension-type headache, do we need to look for a CAT scan or an MRI, or really any brain imaging to try to determine whether this is the cause?

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Dr. Burch (23:01): If somebody comes to me with headaches that meet criteria for tension-type headache and they're not getting — maybe they're a little worse but they haven't been getting very quickly, progressively worse, and they have a normal neurological exam and none of those other features on the history that make me worry — then no, I am not going to do any head imaging. The other thing I should say is that my practice is generally not to get a CT scan, a CAT scan, but rather to order MRIs. Because my experience is that if I'm worried that something is causing a headache, I probably am going to need an MRI to figure out what that is, and that a CT scan is not going to provide enough information for me.

Kellie Pokrifka (23:45): What are some at-home treatments we can do, for example, ice or heat?

Dr. Burch (23:49): I think those at-home things are really important, regardless of what kind of headache somebody has. And again, there's not a lot of evidence, so it goes very much based on what an individual person finds helpful for them. Because of the muscular component with tension-type headache, I do think that things aimed at helping to reduce muscle tension or soreness, tenderness can be particularly helpful here. So, heat, if that's what people find helpful, or ice, depending. And I do think if you're somebody who finds soaking in a hot tub with some Epsom salts is helpful to you, it's absolutely worth doing. Anything you can do to help yourself get more comfortable is a good idea. Learning a little bit of self-massage can be helpful. Trying to figure out, are there particular trigger points or something that, if you hold them and then release them, that helps to release some of the muscle tension. Some of my patients find certain smells are helpful to them. It's just whatever helps you feel more comfortable and helps you relax.

Dr. Burch (25:00): That being said, I am always careful to say that you do not have to do this alone. It's important to know what you can do, but if you're doing those things at home and it's not working and you're still bothered by your headaches, try and come see somebody and see if we can just boost up the treatment plan a little bit with some medication.

Kellie Pokrifka (25:24): I love that. You really can get help for this, and you're not alone. There [are] people who want to help you and are willing to help you. And there's also so many great support communities, you never have to go through this and be wondering, "Is there something else out there that I don't know about?" What are some common conditions that are misdiagnosed frequently for tension-type headache?

Dr. Burch (25:47): Yeah, I think that's a really good question. When we're looking at tension-type headache, we want to make sure that it's not actually being caused by something else. Because it's a primary headache, there can be contributing factors, but we want to make sure there isn't something big that's actually causing the headache. One thing that can do it is TMJ [temporomandibular joint] disorder. People who have TMJ, or facial myofascial pain, or pain with eating, or if they tend to carry a lot of tension in their jaws, sometimes that can cause pain in the temples, and that can sometimes look like tension-type headaches. That's one thing. Then there's also cervicogenic headache, which is not from muscle tension in the neck. It's actually from pathology in the neck itself, in the bones rubbing together or one of the nerves being compressed as it comes out from the spinal cord, especially if that's high up in the cervical spine. So that's another thing that we may want to ask about and potentially rule out.

Dr. Burch (26:59): And then I will also say that as people get older, once people get over the age of 50, there are some other kinds of headaches that start to enter the picture, like inflammation of the blood vessels that can cause a headache that looks like tension-type headache and cause

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some muscle aching and pain, as well. That one's called giant cell arteritis (GCA). And there are some other things as well, but again, that falls into the category of: This is new, this is different, this is getting worse. So then my radar goes up that maybe there's something else causing this and it's not just a straightforward tension-type headache picture.

Kellie Pokrifka (27:36): Would you recommend to your patients who are experiencing this to keep a headache diary?

Dr. Burch (27:40): Well, I'm a headache specialist, so I think everybody should keep a headache diary. I'm always of the belief that more information is useful, especially in the beginning where we're trying to figure this out. And I think a headache diary can be helpful for a couple of different reasons if you think you have tension-type headache. One is to tell us how often you're having attacks. So if somebody comes in and says, "I think I have tension-type headache and here's my diary," and we're kind of looking at it and we say, "Oh well, you had to go lie down with this one." That's not usually a tension-type headache thing; that's more of a migraine thing. "And you ended up leaving work with this; why was [that]?" "I wasn't feeling well. My stomach was upset." OK, that's really helpful to us.

Kellie Pokrifka (28:24): When would you recommend seeing a healthcare provider for tension-type headache?

Dr. Burch (28:28): Well, I think if what you are doing at home is not working, and when I say "not working," I think if you're thinking about it, then probably what you're doing is not working. If the headache is causing difficulties in living your life the way you want to, so it's causing difficulties at work or it's causing you to miss activities in your daily life that you need to and want to be present for. If the headache has changed in any way, if the headache has been getting worse over time, or if something just doesn't sit right about it. Maybe you're having other symptoms along with it, or it's just bothering you. It's always OK to come in and ask the question: What's going on and is it OK? Can I get help with it?

Kellie Pokrifka (29:16): So basically, what you've been telling us today is that while tension-type headache can tend to be less severe, less burdensome, that's not the case for everyone. So if you are experiencing severe disability from this or even moderate disability from this, you deserve help, and you deserve to see someone who can really help you and help understand your treatment options and your support. And you deserve this care.

Dr. Burch (29:42): Absolutely. I'm a big believer in the idea that everybody deserves expert care and everybody deserves to feel better.

Kellie Pokrifka (29:50): Dr. Burch, do you have any other resources you would like to share for us?

Dr. Burch (29:55): I am a big fan of the American Migraine Foundation website. Even though migraine is in the name, there are a lot of resources about different kinds of headaches. It's written in a way that's very accessible. It has a very comprehensive library of recommendations and topic sheets, and things like that. And a lot of the recommendations for things like lifestyle changes and integrative therapies are just as helpful for tension-type headache as they are for migraine. So I really like that as a resource.

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Kellie Pokrifka (30:26): Yes, I love that. Please do not let the name migraine detract you from going to any of these great patient advocacy or provider resources because [other] headache disorders are just as important and they're talked about a lot. Dr. Burch, thank you so much for being on the Migraine World Summit.

Dr. Burch (30:48): What a great conversation. Thank you so much again for having me.

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