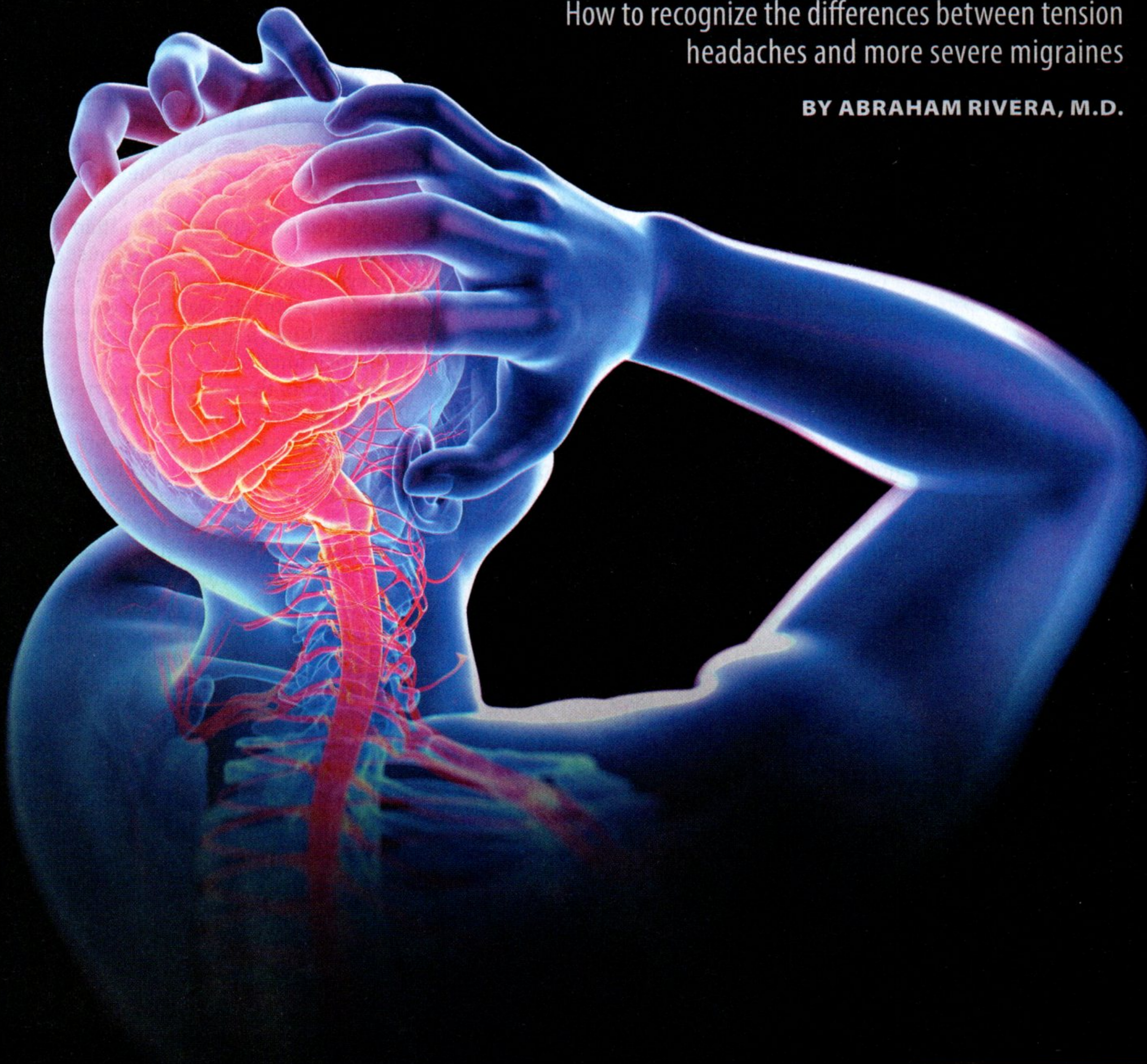
DIAGNOSIS: MIGRAINE

How to recognize the differences between tension headaches and more severe migraines

BY ABRAHAM RIVERA, M.D.



Ana remembers her first migraine like it was yesterday. In her early 20s, she was chronically overbooked, balancing the stress of law school with an active social life. One night, she was in a hurry to get ready to meet friends but couldn't get her eyeliner on straight.

"It was the strangest thing," she says. "I had done it literally hundreds of times without thinking. And then I realized, I couldn't see my eye. Actually, I couldn't see my face." The center of her field of vision had become a blurry pool with sparkling edges that grew larger and larger as the minutes passed. "It was terrifying, I was convinced I was going blind or having a stroke." In a panic, she dialed 911. After taking her history, she was shocked to hear the responder tell her to take an aspirin and

lie down — she wasn't having a stroke, but was probably going to have a whopper of a headache.

The visual changes that Ana experienced are called an aura, visual disturbances that come about an hour before a migraine attack for about 30 percent of migraine patients. Migraine headache is relatively rare; about 18 percent of women and 6 percent of men report one each year. However it can be underdiagnosed and undertreated because we tend to think of headaches as an unavoidable hassle. Most such headaches are tension headaches, and they account for up to 90 percent of headaches that people experience.

Generally related to stress and muscular tension in the neck and head, tension headache pain tends to be dull, aching, and equally distributed across the skull. Occasional use of over-the-counter pain relievers such as ibuprofen or acetaminophen is often an effective treatment.

By contrast, migraine headaches are generally moderately to severely painful, and they come with an added cocktail of symptoms: visual auras, nausea, and sensitivity to light, noise, and odors. The differences in the symptoms between tension headaches and migraines reflect their different causes; unlike tension headache, migraines are thought to be neurovascular in origin — that is, starting in the brain and spreading to the blood vessels around it. Often described as a an electric storm in the brain by neurologists, the pulsating, one-sided nature of the migraine is its namesake, deriving from the Greek word *hemikrania*, or "pain on one side of the head."

Ana's migraines came with increasing frequency and intensity throughout her 20s. "I had had headaches before, but these were debilitating. Maybe even the nausea more than the pain. It was like having a hot steel rod pushed through your eye while being seasick." Her attacks lasted six to 24 hours each, and some weeks they came in spates. When a migraine hit, she was bedridden until it lifted.

She credits the chronic absences from her demanding law career for her poor work performance reviews in the corporate firm. "Everyone was giving 150 percent, and then I'd need two sick days at a moment's notice. Sometimes I'd get one at work, and I'd try to fight it out, which only made it worse. I'd end up on the floor of the office bathroom, trying to figure out how I was going to be able to even get home."

Still, she told herself, these were just headaches. Sometimes even a few months would go by without one. She kept treating them the way she knew worked, with increasingly frequent doses of aspirin and ibuprofen that seemed to take less and less of the pain away. Worse yet, as she relied more on the medications to manage the severe headaches, she began to experience dull, lingering head pain almost every day.

In her early 30s, she developed a painful case of gastritis, inflammation of the stomach lining, that landed her in the emergency room. When she told the ER staff exactly how much ibuprofen she had been popping, the doctor told her she would need to stop cold turkey to let her stomach heal. "Without the pain meds, my head would be constantly achy and I'd have no way to deal with the intense ones that would knock me out for a day. But then when I'd take the pills, my stomach would feel like it was eating itself."

Unfortunately, Ana's case is not unique. Research shows that many migraine sufferers do not recognize their unique symptoms and self-medicate with ineffective and potentially damaging over-the-counter medications. After the ER visit, Ana saw her primary-care doctor, who

IS IT A MIGRAINE?

If you have two or more of the following symptoms, talk to your doctor about your headaches.

- **Headache that is moderately or severely painful**
- **Headache pain gets worse with physical activity**
- **A headache that is throbbing and is often worse on one side**
- **A headache that causes you to miss school, work, or other activities**
- **Increased sensitivity to light, sound, or smells during a headache**
- **A long-lasting headache (4-48 hours if untreated)**

Source: American Migraine Foundation

Old box studio/Shutterstock

gave her a referral to a pain-management specialist, a type of doctor that specializes in evaluating, diagnosing, and treating pain disorders, especially those that are chronic or complex.

After diagnosing her with classic migraine and rebound headaches due to medication overuse, Ana and her doctor developed a plan to manage her daily dull headaches and episodic migraine attacks. For many people who have migraines, keeping a headache diary is an essential first step in understanding the environmental factors that might precipitate a migraine. By paying close attention to their sleep, activity, and even eating patterns, patients with migraines oftentimes see patterns emerge to what had previously seemed like random episodes. There are myriad reported migraine triggers — anything from chocolate, cologne, or certain hormonal therapies such as birth control can aggravate them. The sensitivity of migraines to estrogen is one reason the condition tends to occur more in women and tends to improve after menopause.

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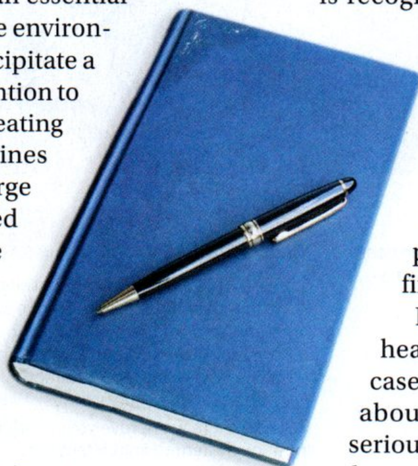

Ana quickly noticed that, along with her menstrual cycle, her headaches appeared uniquely sensitive to disruptions in her sleep — a factor oftentimes outside her control due to her young child's schedule. Her pain-management specialist prescribed amitriptyline for abortive therapy, which refers to pain medication taken as soon as a migraine begins in an attempt to stop it before it starts. Technically a tricyclic antidepressant, amitriptyline and other medications in its class (called triptans) can treat migraines right where they start — inside the serotonin system in the brain.

Abortive therapies can be especially effective at stopping the "electrical storm" in the brain that seems to precede migraines, but when patients reach for them multiple times per week, pain-management specialists often turn to suppressive therapy. Suppressive therapy for migraine involves daily medications to help prevent migraines rather than treat them as they arise, and include antidepressants, calcium channel and beta blockers, and even injections of botulism toxin (Botox) into the scalp. For Ana, improved sleep routines and a daily dose of propranolol, typically used for managing high blood pressure, helped her get her life back.

The first step to treating migraine headaches is recognizing the symptoms and seeking a diagnosis from a qualified medical care provider. While many cases of migraine can be resolved in primary care, pain-management specialists are uniquely trained in treating migraines that are complicated, severe, or that resist first-line treatments.

Despite the tendency to dismiss headaches as mere nuisances, Ana's case illustrates what we are learning about migraine — it's worth taking seriously, literally. Recent research has shown that chronic migraine sufferers cost their employers up to $200 per week in lost productivity. Indeed, lost productivity due to pain syndromes costs $335 billion per year, more than heart disease or diabetes. Beyond the financial costs, migraine sufferers experience significantly lower quality of life and greater risk of depression. Timely and effective detection and treatment of migraine alone can be a significant boon to public health and prosperity. ■

Abraham Rivera, M.D., is the medical director for Physician Partners of America and oversees 26 physicians in all facets of pain management. He is also the chief medical officer for the Florida Pain Relief Group, in the Tampa Bay area. He previously served as the director of pain management at the Florida Medical Clinic, a 200-physician multi-specialty group. Dr. Rivera specializes in spinal cord simulation, intrathecal therapy, and other advanced pain-management interventions.