Expert Opinion

Pseudosinus Headaches: Misdiagnosis of Migraine by Migraineurs and Physicians

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Millions of people in the United States have "pseudosinus headaches."

CLINICAL HISTORY

A 30-year-old attorney presented with a 9-year history of visual episodes and headache occurring about once every 3 to 4 months. She described seeing flashing lights for about 30 minutes. She would then develop a bifrontal throbbing headache, which would typically resolve in about 30 minutes following use of naproxen, but without treatment could last for hours. She was not aware of any triggers. She reported that her gynecologist told her these episodes could not be migraine because of her positive response to naproxen.

Eight months ago, she developed a new type of headache, occurring about once every 6 weeks, triggered by red wine or changes in barometric pressure, and unheralded by any visual aura. This severe, left frontal, and periorbital throbbing pain with associated nausea and vomiting would last about 12 hours and compel her to lie down in a dark, quiet room. Naproxen and sinus medication did not help. She saw an ear, nose, and throat physician who obtained computed tomography of the sinuses with normal findings. He recommended that she see an ophthalmologist and a neurologist. Family history revealed that both her sister and mother had a long history of severe headaches with nausea and sometimes vomiting. Findings from her neurologic examination were normal.

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She told me that her mother, sister, and she all strongly believed that they had sinus headaches. Although she was familiar with television and print advertisements for migraine medications including various triptans, Excedrin Migraine, and 2 different brands of ibuprofen, she did not realize that she had migraine.

Questions.—What else can be done to educate physicians and the public about migraine? Why should it be such a difficult diagnosis? In particular, why the fixation with "sinus headaches?"

EXPERT COMMENTARY

Unfortunately, 52% of Americans with migraine have absolutely no idea that they have migraine, nor do their physicians.[1,2] Instead, sinus headache, tension-type headache, and "stress headache" are diagnosed far too frequently. This disconnection, ie, the frequent misdiagnosis of a frequently occurring disorder, produces considerable confusion, suffering, delayed treatment, and alienation from appropriate health care. It misleads those with migraine to exclusively treat headaches with over-the-counter preparations 57% of the time. Additionally, it leads migraineurs to be dissatisfied with their current headache treatment and to lapse from headache care, disheartened by physicians' inability to find efficacious medications. The sad notion that nothing helps can lead undiagnosed migraineurs to suffer many years with prominent disability.

Why is a frequently occurring disorder, migraine, frequently misdiagnosed? Why does such a disconnection occur? In a single word: attitude. Attitudes

represent a complex melange of thoughts, views, opinions, beliefs, feelings, intuitions, biases, and prejudices that govern how we feel, react, and adjust to our environment. If a patient or physician has a terrible negative or ignorant attitude toward migraine, an accurate diagnosis is unlikely to be made until that attitude improves. That adjustment allows appropriate communication, which can translate into correct diagnosis and appropriate treatment. Time after time, patients have recalled how their migraine diagnosis finally was made only after the possibility was discussed with their physicians.

The impact of attitude on the diagnosis and misdiagnosis of migraine was explored recently by Fabre et al, Smith, and Evans and Lipton.[3-5] Fabre et al surveyed French general practitioners and noted that doctors who have migraine are more likely to have a greater number of patients with migraine than other doctors.[3] Smith divided primary care physicians in a large group practice into 2 groups, those who diagnosed migraine frequently and those who diagnosed migraine infrequently, and found that those who diagnosed migraine frequently more often had a first-degree relative or spouse with migraine.[4] Evans and Lipton reported that 75% of male and 78% of female headache specialists have migraine.[5] These surveys suggest that attitude is influenced positively by the physician's own experience; seeing migraine is believing migraine. To watch a spouse, sibling, or parent suffer the ravages of migraine indelibly imprints sympathetic images of migraine disability.

For good or ill, in the physician's office migraineurs typically are evaluated when headache-free, rational, and perhaps inclined to underestimate the negative impact of migraine on their lives. Since many patients do not spontaneously report disability, it is necessary for the physician to ask.[6] When headache-associated disability is assessed by asking the patient specifically about the need for bed rest during attacks and disrupted work or social events, the impairment and suffering induced by migraine are easily recognized. As a supplement to the direct history, headache disability and impact are readily measured by such instruments as the MIDAS (Migraine Disability Assessment) or HIT (Headache Impact Test) questionnaires. By objectively quantifying migraine-associated disability, it is possible to get a snapshot of a migraineur's present status. The identification of migraine-associated disability, whether by eyewitness observation, history, or questionnaire, appears to modify one's attitude towards the condition. Again, seeing is believing.

Headaches cannot be diagnosed by identifying pain location, response to therapy, concomitant stress, emotional state, or the presence of a stuffy or runny nose. No single, isolated feature will allow accurate diagnosis of primary headache. To do so, one must identify the specific presenting characteristics, the temporal profile, and the associated clinical features. Rapidly developing periumbilical pain that migrates to the right lower abdominal quadrant in a febrile adolescent is not diverticulitis; it is appendicitis! Rapid and accurate diagnosis is facilitated by pattern recognition. Similarly, recurrent attacks of moderate to severe, pulsating headache associated with nausea, environmental sensitivities, and disability define the pattern of migraine. Recognition of this pattern allows early diagnosis and appropriate treatment.

This case exemplifies the phenotypic spectrum of headache presentations that typically are experienced by the individual migraineur and in addition, illustrates all too well how attitudes defeat proper diagnosis. The patient experienced migraine with aura. Her gynecologist failed to make the correct diagnosis, possibly reflecting the clinician's assumption that, despite the strong "hint" offered by aura, the responsiveness to naproxen was indicative of headache insufficiently severe to warrant a migraine diagnosis. Next, she developed migraine without aura that was unilateral—another major migraine clue—that, again, failed to yield a correct diagnosis. Finally, even a family history of severe headaches associated with nausea and vomiting did not result in the diagnosis of migraine, the most commonly occurring inherited headache disorder; instead, the pseudodiagnosis of sinus headache prevails. Is it possible that her headaches represent familial sinus headache? No! Although migraine may be mistaken for sinus disease because of associated nasal congestion, rhinorrhea, inducement by weather change, and the frontal or facial location of pain, the tendency to confuse the 2 is more often a consequence

of a refusal, on the part of clinician, patient, or both, to accept migraine as a diagnosis.

Migraine is a benign, recurrent headache with environmental sensitivities, nausea, and disability. To reduce migraine misdiagnosis will require more than dissemination of the International Headache Society criteria or catchy phrases. Attitudes must change, and to change attitudes, educators must offer effective educational experiences that communicate the prevalence and negative social impact of migraine. Seeing is believing.

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