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Sinus Headache: A Medical Myth

By Hossein Ansari, MD, Medical Director, Headache Center at NNA

You may be one of the millions of Americans who thinks they suffer from sinus headaches. In fact, many people are even diagnosed with the condition by their physicians. However, these "sinus headaches" are often actually migraines.

How many sinuses do we have?

The picture above shows that we have four groups of sinuses: the frontal sinuses in the forehead area, the sphenoid and ethmoid sinuses, located at the back of the nose and eyes, and finally the maxillary sinuses located in the cheek area. If any of our sinuses become inflamed due to infection or allergies, headaches may result.

Headache in sinus infection

In the case of sinus infection, the patient will have pain in that particular sinus location. However sinus infections result in additional symptoms beyond headache or face pain. Acute sinus infections are usually accompanied with fever, generalized illness, and other severe respiratory symptoms such as cough and congestion. The most commonly associated symptoms with chronic sinus infections include generalized malaise, nighttime cough, and thick, green or yellow nasal discharge. However, almost all patients diagnosed with sinus headache do

not have any of the above symptoms, but are often treated with repeated, unnecessary antibiotic therapy. Even in the event of a true sinus infection, most of these are viral and do not require antibiotics.

Headache specialists at the forefront of migraine care and treatment also concur that sinus headaches do not exist in absence of other symptoms. Professor Silberstein, MD, who authored the American Academy of Neurology's guidelines on migraine diagnosis and treatment, says, "People with sinus infections don't complain of headache first. They say they are sick and have a headache. If your headache is truly caused by a sinus blockage, such as an infection, you will likely have a fever."

Dr. Seymour Diamond, one of the pioneers of headache medicine also agrees, stating that "many patients suffering from migraine may be misdiagnosed as having sinus headache, even by a physician."

Allergies, Headache and Migraine

Allergists are often confronted by patients complaining of "sinus headache." It is a common misconception that allergies cause sinus headaches. However, the truth is that allergies can cause sinus congestion, which can lead to headache. If you

have allergies, the allergy treatment will not relieve headache pain, and although the correlation between allergy and migraine is well-established, it is not a causal relationship. Therefore, better control of allergy symptoms may lead to fewer headaches, but generally these two conditions generally must be treated separately.

In some migraine patients, due to the activation of the autonomic nervous system, various nasal symptoms including congestion, facial pressure, and even a clear, watery nasal discharge can accompany migraines. But it is important to remember that in sinusitis, nasal discharge is not clear. Migraine headaches often flare up with weather changes, and specifically barometric pressure. This contributes to further misdiagnosis of migraines as sinus or allergy related headaches. More than 4 out of 5 people who think they have a sinus headache with symptoms like pain in the head, stuffy nose, and watery eyes actually have migraine headaches.

A surgical solution?

Sinus surgery can be a helpful form of treatment for a select population of migraine patients with anatomic abnormalities in the sinus and nasal area. These abnormalities can be a constant triggering factor for this specific type of migraine sufferers. This condition is sometimes referred to as mucosal contact point headaches. Sufferers will benefit from surgery in order to get rid of those trigger contact point(s), which in turn, improves their migraines. However, this surgery needs to be performed by surgeons who are familiar with migraine and contact point headache surgery.

Unfortunately, many patients undergo unnecessary surgery due to improper diagnosis. A majority of these patients' headaches either don't improve or even worsen after surgery. Therefore, patients should be carefully selected prior to undergoing any type of sinus or nasal surgery for headache relief.

If it's not a sinus headache, then what is it?

Multiple studies have been performed to answer this question. One of the best studies, published in 2007, entitled "Sinus, Allergy and Migraine Study" (SAMS), revealed that 86% of the study patients diagnosed with sinus headache suffered from undiagnosed migraines.

Other studies confirmed the SAMS findings, reporting that approximately 90% of people seeing a doctor for sinus headaches are found to have

migraines. The remaining 10% suffer from another type of headache, the most common of which is tension-type headache.

Finally, in the most recent publication of the International Forum of Allergy and Rhinology, it is emphasized that the majority of patients presenting with the diagnosis of "sinus headache" in the absence of significant acute inflammatory findings will be diagnosed with migraine.

The American Migraine Study II estimates that 28 million Americans suffer from migraine headache. The majority of these patients remain undiagnosed and many are erroneously diagnosed as having sinus headache.

The International Headache Society (IHS) emphasizes that chronic sinusitis is not a validated cause of headache or facial pain unless relapsing into an acute phase.

Conclusion

One reason for the high rate of "sinus headache" misdiagnosis is that most patients do not seek treatment from a headache specialist. In fact, the Headache Journal reports that primary care and ENT doctors manage almost 90% of all patients with acute sinus infections. Headache specialists often-times see patients with chronic headaches who have sought other forms of treatment due to misdiagnosis. Examples include patients who underwent multiple sinus or nasal surgeries, several years of allergy injections, chiropractic manipulations, dental procedures, and those who take large amounts of sinus medication, yet suffer from headaches. Therefore, it is advisable for people who suffer from chronic headaches and suspect or have been diagnosed with a "sinus headache" to consider reevaluating their diagnosis by seeing a headache specialist before proceeding with alternative treatment options.

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