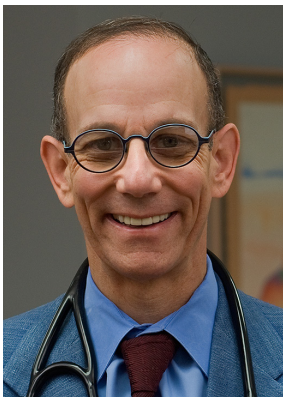

Medication Overuse Headache: Inaccurate and Overdiagnosed

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SAMPLE CASE

Caitlin is 28 years old, with a 10-year history of chronic migraine. Eight preventives, including Botox, proved ineffective in relieving her symptoms. Caitlin has a busy job and needs to function at a high level. She finds that taking one to two sumatriptan tablets per day are helpful. In addition, she takes three Excedrin tablets on a daily basis. Without these abortives, she reports ending up in bed with a severe migraine.

Previously, three different physicians told Caitlin, "You are causing your own headaches. If you get off of these acute medications, your headaches will improve greatly." She countered by saying, "Maybe I have withdrawal headache but I have only been on these for five months; I have had daily migraines for 10 years. I am willing to stop them but I need to work and function." This represents a typical conversation among medication overuse headache patients and physicians. Ultimately, the patient's question of what to do about the pain goes unanswered as they are often told, "Take your abortive only two days a week, don't take this, don't take that." Ultimately, the patient is left wondering, "How do I function, or even exist?"

Differentiating MOH & Medication Overuse

Medication overuse headache (MOH) is very frequently diagnosed. However, the diagnosis is often overused, and many patients may be labeled as having this condition when what they actually suffer from are refractory headaches. To further complicate the issue, much of what is written about medication overuse and MOH can be confusing, with little scientific validation offered. For example, epidemiologic studies of MOH do not differentiate medication overuse from medication overuse headache.

Current diagnostic criteria for MOH generally requires abortive medication use for 10 to 15 days per month, depending on the acute medication used.[1] The catch is that, in order to diagnose MOH, the abortive must actually be causing the increase in headache. Medication overuse (MO), in contrast, often occurs among individuals with frequent headaches. However, overuse does not necessarily lead to increased headache. Diagnosing MOH is, therefore, not an easy task.

Assessing for medication overuse headache requires a careful examination of the patient's medication and headache history. Typically, as abortive medication is used more frequently, headaches (usually migraines) tend to escalate. In addition, after the offending medication is withdrawn, headaches may recede. The confounding issue is that, as headaches accelerate, medication use also increases. It becomes a classic "chicken or egg" scenario.

For those with refractory chronic migraine (RCM), MO is almost always part of the illness. However, even with RCM, MO does not necessarily result in MOH. RCM is defined as chronic migraine that does not respond to various classes of preventives, including onabotulinum toxin A.

The Problem with Misdiagnosis

Physicians may be quick to blame a patient for causing MOH. Patients may be told, for instance, that they are suffering from MOH due to a particular medication, even though they have only been taking that drug for a short time, and the headaches did not increase once they began the medication. Also, to differentiate MOH from simple MO, the headaches should improve after withdrawal from the offending abortive medication.

Patients presenting with chronic headaches often are

instructed to use an abortive no more than two days per week. The patient is then left to function on their own, without relief, for the other five days of the week. With many headache specialists and neurologists maintaining this rigid posture, refusing to allow more than a bare minimum of abortive medication, the patient either suffers or drifts elsewhere. Of note, a recent Boston University study found that 15% of subjects taking ibuprofen or other NSAIDs exceeded the daily dosing limit.[2]

There are a number of variables, including genetics, age, and type of medication, that may help to explain why one patient may suffer from MOH and another may not. A number of years ago, most available abortives, including all nonsteroidal anti-inflammatory drugs (NSAIDs), were implicated in MOH. Today, clinicians recognize that certain medications, including NSAIDs and triptans, are less likely to cause MOH than other analgesics. We know, for example, that opioids, butalbital compounds, and abortives containing high doses of caffeine (eg, Excedrin), tend to be the worst offenders.

Treatment Options

For those accurately diagnosed with MOH, treatment remains complex and, as with any treatment plan, must be carefully designed around the individual.

The Pursuit of Preventives

Physicians usually prefer to pursue a preventive medication approach. Unfortunately, current preventives on the market (eg, beta blockers, antidepressants, anticonvulsants, onabotulinum toxin A) were not developed with headache in mind and, for many patients, lead to inadequate efficacy or cause unacceptable side effects. In the author's experience, onabotulinum toxin A is the most effective preventive on the market, with the least side effects. One long-term study indicated that only about half of migraine patients found any preventive helpful for longer than six months.[3,4]

If preventives are used, the choice of which preventive to use may be complicated. Factors that influence selection may include: severity and frequency of headaches; the patient's previous response to medications and family history; medical and psychological comorbidities, including weight, fatigue, sleep, gastrointestinal issues, finances, job requirements; as well as patient preference and overall "Gestalt."[5]

Abortive Reduction

An important aspect of treatment should be to reduce (or eliminate) the abortive that may be causing MOH. Withdrawal from the offending medication should be done slowly. At times, clinicians may use short courses of low-dose corticosteroids (eg, 10 mg of prednisone, or 2 mg of

dexamethasone twice daily, for four to six days). Inpatient treatment may help, but poses drawbacks tied to cost and inconvenience. Intravenous medications, such as dihydroergotamine (DHE), may be administered in an outpatient setting or at home (SQ DHE). NSAIDS and muscle relaxants sometimes play a role in treatment as well.

Experience indicates that, long-term, at least half of those with MOH revert back to overuse of their abortive. Patient education about MOH is therefore vital for success. The conversation may prove difficult if the patient feels that their quality of life is significantly improved by taking certain analgesics or triptans. If the abortive also helps to alleviate a comorbidity, such as anxiety, it may prove even more difficult for the patient to "stay clean." If the patient is unable to discontinue daily abortives, the goal then should be to minimize the dosage. If the individual is taking one to two sumatriptan tablets daily, for example, dosage could be decreased to one-half tablet at a time, no more than once per day. Similarly, three Excedrin tablets per day may be more acceptable than eight per day.

Taking a Multidisciplinary Approach

A multidisciplinary approach—including physical therapists, psychotherapists, interventional pain specialists, biofeedback therapists, meditation, and massage experts—is ideal, but not always practical. It "takes a village" to help a severe headache patient, and physicians may recruit "other villagers," the most common being psychotherapists and physical therapists, who may recommend exercise, biofeedback, acupuncture, and so forth. Improving the patient's self-efficacy, overall, while moving away from analgesics, is most crucial.

On the Horizon

Medication overuse headache is a complex subject. There has been much written about it, from definition to treatment, much of which lacks scientific credibility. Patients are often reflexively labeled as having MOH, and often undertreated. While we must address medication overuse, we also have to keep in mind the patient's quality of life.

Part of the problem is the inadequacy of available preventives. We desperately need better medication options. A new class of calcitonin gene-related peptide (CGRP) inhibitors offers an exciting and hopeful development. These inhibitors involve an injection, every one to three months, to prevent migraines. In short-term studies, CGRPs have been very well tolerated, without liver or kidney irritation. Long-term adverse effects remain unknown. For now, the treatment approaches outlined herein may be the best course of action.

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EDITOR'S NOTE: Look for our special Headache, Migraine & Neck Pain issue this June. Submissions may be sent to ppmeditorial@verticalhealth.com.