

Medications for Migraine

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As a pediatric neurologist with a busy outpatient practice, children suffering from headaches make up about a third of my office visits. Recurrent headaches can be disabling for children. Headaches are the third most common cause of school absenteeism and often result in limitation of sports and other extracurricular activities. Migraine is the most common primary headache syndrome. A comprehensive program to treat migraines may include lifestyle changes with trigger identification and avoidance, medications, complementary and alternative medicine treatments, and strong family/mental health support.

Generally by the time families end up in my office, some effort at lifestyle changes with headache trigger identification and avoidance strategies have been attempted. When families come to see me, I always spend some time educating them and reinforcing adequate lifestyle changes before launching into a discussion of pharmacotherapy. I put together some valuable resources for families including common headache triggers/food triggers and a headache diary available on our web site at <http://www.mcintoshneurology.com>.

Medications for the management of migraines can be divided into four classes: symptomatic, abortive, preventative/prophylactic and rescue medications. There are several medications within each class. Tailoring an individualized treatment plan is an essential component of an overall management strategy which should be formulated by a professional comfortable with each class of medications.

Symptomatic, abortive and rescue medications are used during an acute migraine attack. Symptomatic treatments are basic over-the-counter analgesics such as ibuprofen, naproxen, and acetaminophen ("headache medicines") which "dull" headache pain. If aggressive symptomatic treatment is used early on in the course of the acute migraine, there may be very good control of the headache. Unfortunately, even with good headache relief, many migraineurs report having continued challenges with the "washed out" period that follows the pain relief (difficulty concentrating, fatigue and

poor academic performance). Also, overuse of analgesics may result in rebound and/or chronic daily headache.

After their introduction in the early 1990s, new migraine-abortive triptan medications revolutionized migraine treatment and were considered a "miracle drug" for many migraineurs. Triptan medications such as: sumatriptan (Imitrex, Imigran), rizatriptan (Maxalt), naratriptan (Amerge, Naramig), zolmitriptan (Zomig), and others have demonstrated about 60 to 80% effectiveness in providing complete relief within two hours. Additionally, triptan medications help prevent the "washed out" period that follows pain relief. Triptan medications are usually reserved for situations when lifestyle changes and symptomatic treatments have failed to provide adequate relief. Like symptomatic treatments, triptan medications work best when taken very early on in the course of the migraine. Recently, a combination sumatriptan/naproxen medication was released which emphasizes the point that using a triptan medication should not be delayed until symptomatic treatment has been attempted and failed during an acute migraine. Overall, triptan medications are well-tolerated. Special precautions need to be observed when taken with other classes of medication, especially selective serotonin reuptake inhibitors (SSRI's).

Some general indications for considering the use of a preventative/prophylactic medication include: two or more prolonged and debilitating headaches per month, use of abortive medications more than twice a week and uncommon migraine conditions/migraine variants. Serendipitously discovered medications from a variety of diverse pharmacological classes are used for migraine prevention. Some examples are: anticonvulsants such as topiramate (Topamax), valproic acid (Depakote) and gabapentin (Neurontin); beta-blockers such as propranolol (Inderal) and timolol; tricyclic antidepressants such as amitriptyline and nortriptyline; and other medications including SSRI medications, lisinopril, and Botox injections. Deciding which preventative medication to use and fine tuning the dosage is where an experienced clinician,

often in consultation with a specialist, can have the most impact on improving the quality of life of individuals suffering from recurrent migraines. Generally, the clinical decision-making process involves detailed conversation about medication effectiveness and possible side effects. The presence of comorbid conditions is also an important factor. For example, if I am treating an adolescent with migraines who also has a little bit of a depressed mood, I may consider a trial of amitriptyline (tricyclic antidepressant) rather than propranolol (beta-blocker). Many other factors come into play here including the child's age, nature of the headaches, and other medications/medical conditions.

Rescue medications are stronger opioid analgesic medications (such as hydrocodone or oxycodone-containing medications and morphine) which should be used very infrequently but can be helpful for severe acute migraines which have failed to respond to symptomatic or abortive treatment. These are the sort of medications which may be prescribed for situations in which the symptoms are so severe that, without immediate relief, a trip to the emergency room would be necessary.

Once a diagnosis of common migraine (migraine without aura) or classic migraine (migraine with aura) has been established, most primary care physicians should be comfortable recommending lifestyle changes with trigger identification/avoidance and starting symptomatic treatment such as ibuprofen, naproxen, and acetaminophen. If this initial course of action fails to adequately control the migraines, a trial of an abortive triptan medication should be initiated. As a general rule, children with recurrent headaches that are not clearly part of a common benign primary headache syndrome (such as migraine, tension or cluster headaches) or that have failed abortive treatment should be referred to a specialist such as a pediatric neurologist. Some of this decision-making depends on the experience and training of the primary care physician and the accessibility to pediatric neurologists in the area.

Fortunately, we live in an era having valuable medication treatment options for migraine. In addition to lifestyle changes with trigger identification/avoidance, complementary and alternative medicine treatments and

psychosocial support, medications are an important component of a comprehensive management plan.

Suggested Readings

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