Symptomatic Treatment Options when Triptans and Ergots are Contraindicated

Stephanie J. Nahas, MD, MS Ed
Department of Neurology, Thomas Jefferson University and Jefferson Headache Center, Philadelphia, PA

Triptans and ergots are the only migraine-specific abortive medications available today. Patients with coronary artery disease, cerebrovascular disease, peripheral vascular disease, uncontrolled hypertension, risk for acute vascular syndromes, potential for pharmacologic interaction, or intolerance to these drugs cannot take them. What other options exist?

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

Sterile inflammation is part of the underlying pathogenesis in migraine, and therefore, anti-inflammatory agents are often effective. The strongest evidence exists for *aspirin, ibuprofen, naproxen, diclofenac, ketorolac,* and the combination of *aspirin/acetamoinophen/caffeine.* A rapidly dissolving, rapidly absorbed *diclofenac potassium* powder is FDA-approved for acute migraine treatment. *Celecoxib* may be better-tolerated in patients with acid reflux or gastrointestinal sensitivity to NSAIDs. *Piroxicam* has the longest half-life of all NSAIDs and, in theory, may be more useful for patients with longer-lasting headaches or in whom migraine tends to recur. Caution is advised in patients with bleeding history or risk (especially gastrointestinal) and renal insufficiency. Prolonged regular use of any NSAID may be associated with increased risk of cardiovascular disease and is generally discouraged in any circumstance.

Steroids

Although there is little evidence supporting their use, the most commonly employed steroids for migraine are *prednisone, methylprednisolone*, and *dexamethasone*. These are usually given as a taper over three to six days. Dexamethasone has the greatest glucocorticoid potency of the three. Steroids should not be given for more than an average of three days per month. Particular caution is advised in patients with diabetes and precautions for bone health should be taken for patients who use steroids on a recurring basis.

Neuroleptics

Dopamine is implicated in migraine pathogenesis. Symptoms such as yawning, mood changes, nausea, lightheadedness, and restlessness may be attributable to a surge of or hypersensitivity to dopamine. Neuroleptics have been shown to be effective in both the prodromal and acute stages of migraine, regardless of the presence of nausea. The strongest evidence exists for *chlorpromazine, prochlorperazine, metoclopraminde, droperidol,* and *haloperidol*. Some patients also derive benefit from the newer atypical neuroleptic *olanzapine.* All neuroleptics tend to be sedating, which limits their regular use. They may also cause acute dystonia or akathisia.

Additionally, all but metoclopramide may prolong the QTc interval to varying degrees, thus necessitating baseline evaluation and monitoring if used frequently. Finally, patients need to be counseled on the risk of tardive dyskinesia and metabolic syndrome with ongoing use.

Opioids

Migraine is conventionally considered to be a non-opioid-responsive syndrome, and great concern is always present regarding the potential for abuse, addiction, and medication overuse headache. However, select patients may do well with occasional opioid usage, and for some, these are their only options. The strongest evidence exists for *tramadol, meperidine, butorphanol, fentanyl,* and *codeine*. Tramadol is particularly appealing due to its lower opioid potency, its additional mechanisms of serotonin and norepinephrine reuptake inhibition, and its reduced abuse potential. The ideal patient to receive opioids has no history of substance abuse or psychiatric illness, a limited need for pain medication, and contraindication or intolerance to other less problematic agents.

Others

Used chiefly for migraine prophylaxis, some anticonvulsants as well as magnesium also have utility in acute treatment. The reasons for this remain unclear, but one possible mechanism is acute reduction of cortical hyperexcitability. Intravenous *valproic acid* and *magnesium sulfate* have the greatest evidence, but these are impractical in most settings. Anecdotally, intravenous *levitiracetam* and oral *gabapentin* abort migraine attacks in some patients. Another agent used primarily for prevention, *petasides*, is an herbal extract that is sometimes an effective abortive treatment. Another natural option is *capsacin* nasal spray, though patients must overcome the initial discomfort. *Lidocaine* nasal spray offers less consistent results.

References

1) Taylor FR. Acute treatment of migraine headache. Seminars in Neurology. 2010;30(2): 145-153.

2) Wolff's Headache and Other Pain, 8th Edition. Edited by Stephen D. Silberstein, Richard B. Lipton, and David W. Dodick. Oxford University Press: New York, New York, 2008.