Expert Opinion

When Can Successful Migraine Prophylaxis Be Discontinued?

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Although the decision to start migraine prophylaxis can be straightforward in many cases, the decision to stop may be contentious.

CASE HISTORY

A 43-year-old woman has a 20-year history of migraine without aura. Two years ago, she was having about 8 migraines per month lasting 1–2 days with a variable response to triptans. She was placed on topiramate, 100 mg daily. Since then, there has had a dramatic reduction in the number of headaches to about once or twice monthly. She is typically pain free within 1 or 2 hours upon taking a triptan. She now asks if she can discontinue the topiramate.

Questions.—Can she discontinue the topiramate? Do preventive medications alter the natural history of migraine? What are the general guidelines for discontinuing preventative medications?

EXPERT COMMENTARY

The clinical questions highlighted by this case—when, whether, and how to *discontinue* successful migraine prophylaxis—have received far less attention and study than the question of when to *begin* migraine prophylaxis. We cannot look for answers to clinical trials of migraine preventives, since they are designed to demonstrate treatment efficacy rather than determine its optimal length or show an effect on the natural history of the disorder. The extended studies necessary to answer these questions pose considerable cost and design challenges. It is thus unlikely that Class I, Level A evidence will be available anytime soon to guide decision making in this commonly encountered clinical situation. Consensus-based recommendations contained in treatment guidelines released by various professional groups are summarized in Table.

Uncertainty about the optimal duration of prophylactic therapy is not unique to migraine. Some patients with depression are now recognized to have an unacceptably high risk of treatment-resistant relapse after discontinuation of initially successful prophylaxis. Prolonged or even life-long preventive treatment is now the standard of care for them.[1] A similar evolution in treatment standards for migraine seems likely to occur. Subgroups of migraineurs have been identified in whom negative prognostic factors suggest an increased likelihood of headache progression, or in whom structural central nervous system changes exist that are positively correlated with migraine attack frequency and duration.[2-4] Long-term prophylaxis for those groups may be advantageous.

A suggestion that this is true comes from a follow-up study of 64 migraine patients who discontinued successful prophylaxis. In that study, 25% of patients experienced persistent reduction of migraine frequency, while 75% experienced relapse. Second and third attempts at prophylaxis using the same drug were not as successful as the initial attempt.[5] Based on these

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Recommendations Regarding Duration of Successful Migraine Prophylaxis

Group	Year	Recommendation
American College of Physicians and American Academy of Family Physicians	2002	"After a period of stability, clinicians should consider tapering or discontinuing treatment. Patient and clinician need to engage in an ongoing dialogue in which patient expectations and goals for therapy are taken into account when agents are chosen, titrated, or discontinued."[9]
US Headache Consortium	2000	"After a period of stability, consider tapering or discontinuing treatment."[10]
British Association for the Study of Headache	2000	"Prophylactic drugs that are effective should be continued for 4-6 months then withdrawn (stopped abruptly or tapered) to establish continued need. Uninterrupted use over a year or longer is rarely appropriate."[11]
Canadian Headache Society	1997	". . . once the migraine attacks are controlled, the medication should be tapered." The physician should "explain that prophylactic medications are designed to be used for a number of months and then discontinued. For the few patients with difficult headache problems, however, longer term use may be necessary."[12]

results, prophylaxis for longer than 6 months was recommended for patients with negative prognostic factors. The authors also suggested that a different class of preventive agent should be used when prophylaxis was reinstituted; this is in contrast to the usual clinical practice of resuming the previously effective prophylactic agent. Another small case series similarly suggested that a minority of patients (8 of 20; 40%) who had received treatment for transformed migraine experienced "sustained carry-over effect" (>2 months) following discontinuation of successful prophylaxis.[6]

That a small portion of patients achieved prolonged benefit from prophylaxis raises the question of whether prophylactic migraine treatment might have an effect on the natural history of the disorder in some patients. This is a matter of intense debate. Unfortunately, most trials of prophylactic agents do not occur over a long enough period to evaluate their effect on disease progression and despite our long clinical experience with propranolol, a systematic review of its use for migraine prophylaxis concluded that evidence for long-term effect is lacking.[7] However, it is reasonable to hypothesize that prophylactic treatment for migraine, especially if used early, may have long-term benefit in reducing headache activity, preventing transformation to chronic headache, limiting the appearance of structural central nervous system changes, or minimizing disability. Drugs may not be alone in having this effect; another study demonstrated prolonged reduction of headache frequency following use of a nonpharmacologic treatment intervention.[8]

Interestingly, the authors' (EL & DB) individual experiences, strategies, and clinical recommendations regarding the discontinuation of migraine prophylaxis were found to be strikingly similar despite their independent development. Our practice is to recommend at least 6 months of good migraine control prior to considering a slow taper and potential discontinuance of migraine prophylaxis for patients who experience less frequent migraine attacks, have fewer years of migraine, and present with fewer comorbid conditions such as depression, anxiety, and fibromyalgia, whereas at least 12 months of good control is advised for patients who have a longer migraine history, chronic migraine, and multiple comorbid conditions.

Meanwhile, in the absence of clear evidence about how long prophylaxis should be continued, patient preferences and opinions should be elicited and respected. The patient in this case is inquiring about discontinuation. This suggests that she is one of the many patients who desire to avoid daily use of medication, or dislikes some of the unintended effects of the drug she is taking. Other patients, though, especially those whose headaches before treatment were especially severe, disabling, or poorly controlled, express a strong preference for long-term continuation of prophylaxis. Some wish to continue treatment indefinitely because it controls not only migraine but also a comorbid condition (hypertension, depression or obesity, for example).

Prophylaxis discontinuation does not have to be "all or nothing." An alternative for this patient is

weekly or monthly dosage reduction—to 75, 50, and then 25 mg daily—rather than abrupt elimination. This allows systematic evaluation of the possibility that maintenance of headache control might be achieved at doses lower than those needed to induce initial remission, even if medication elimination ultimately is not successful.

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