Letters to the Editor

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Responses to Treatment of Acute Migraine Headache Article

Original Article: Treatment of Acute Migraine Headache

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TO THE EDITOR: I read with interest the article on treatment of acute migraine headache, but I was surprised to find no mention of the combination of magnesium oxide and aspirin for migraine treatment.

When patients ask whether they should try certain medications of which I am not knowledgeable, such as this one, I inquire how they heard about them and request that they direct me to the source of any material they might have seen. Increasingly, that source is the Internet, rather than more authoritative and objective materials.

Doubtless the authors of this important article could not cover every remedy used for migraine, but I think they missed an opportunity to bring *AFP* readers and their patients up to date about the effectiveness of magnesium oxide plus aspirin.

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TO THE EDITOR: I was pleased to see the review of therapies for acute migraine. Two clarifications may be useful for readers who prescribe the treatments covered in the article.

First, isometheptene-containing drugs are no longer available in the United States; all have been discontinued by the manufacturers. These older products were never approved by the U.S. Food and Drug Administration (FDA) for treatment of acute migraine.[1] This action is consistent with the Healthy People 2020 medical product safety objective to decrease the number of pain medications that are not approved by the FDA.[2]

Second, the article reports the results of a meta-analysis of oral triptans that found that the most effective doses for pain relief were 10 mg of rizatriptan (Maxalt), 80 mg of eletriptan (Relpax), and 12.5 mg of almotriptan (Axert).[3] This is not a clinically relevant comparison, however, because the highest approved single dose of eletriptan is 40 mg, not 80 mg. Although the 40-mg dose of eletriptan can be repeated later for a total of 80 mg per 24 hours, the meta-analysis compared a single dose of 80 mg with the listed approved doses of the other compounds. The meta-analysis did not demonstrate any meaningful advantages for eletriptan at the approved dose of 40 mg in comparison with those drugs.[4]

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TO THE EDITOR: The article on treatment of acute migraine headache mentioned the use of intravenous dexamethasone as adjunctive therapy to prevent headache recurrence within 24 to 72 hours. I am concerned about two issues regarding the use of dexamethasone.

First, the dosage listed in *Table 3* for intravenous dexamethasone is not consistent with ▶

the published meta-analyses.[1,2] The randomized trials used 10 to 25 mg of dexamethasone intravenously, yet *Table 3* lists the dosage as 4 to 10 mg intravenously.

Second, the authors indicate that one trial found oral dexamethasone to be similar in effectiveness to the parenteral form. However, the cited trial of a single oral dexamethasone did not find a reduced rate of recurrent headaches compared with placebo, except for a weak effect in the subgroup who presented less than 24 hours after the onset of symptoms.[3] In addition, a trial of oral prednisone did not find any benefit.[4]

The use of dexamethasone to prevent a recurrent headache is appropriate for some patients, but the dosage needs to be sufficient and should be administered parenterally to likely provide any benefit.

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IN REPLY: I would like to thank Drs. Blum, Loder, and Muncie for their comments and questions.

Dr. Blum raises the question of the effectiveness of a combination of aspirin plus magnesium for abortive treatment of migraine. Two double-blind, placebo-controlled trials have shown that oral magnesium supplementation is effective in migraine prevention.[1,2] Intravenous magnesium was effective as an abortive agent in patients with low ionized magnesium levels, but not in patients with normal magnesium levels.[3]

Aspirin, without magnesium, is used commonly as an abortive agent. A Cochrane review concluded that 1,000 mg of aspirin is an effective treatment for acute migraine headache.[4] To my knowledge, no studies have evaluated the combination of aspirin plus magnesium. Therefore, I am unable to conclude if the combination is more or less effective than aspirin alone for abortive therapy.

I would like to thank Dr. Loder for noting that isometheptene-containing drugs (Midrin, Epidrin) have been discontinued and are no longer available in the United States. The U.S. Headache Consortium assigns isometheptene-containing compounds to group 2 in terms of evidence base for efficacy (i.e., moderate statistical and clinical benefit) on the basis of one double-blind, placebo-controlled study plus clinical impression of effect.[5] It is still possible for patients to obtain isometheptene-containing medications if they are ordered through a compounding pharmacy that can make a drug with the same individual components as Midrin (325 mg of acetaminophen/100 mg of dichloralphenazone/65 mg of isometheptene).[6]

Dr. Loder also makes excellent comments regarding a meta-analysis of the efficacy of various triptans for treatment of acute migraine, noting that although 80 mg of eletriptan (Replax) is cited as an optimal dose, 40 mg is the maximal single dose approved by the U.S. Food and Drug Administration. The main point I wished to convey in that section of the article is that it is difficult to make evidence-based conclusions as to which triptan should be used first-line. A Cochrane review concluded that all triptans are similar in effectiveness and tolerability.[7] Nonresponders to one triptan sometimes benefit from another, and, in practice, other factors (i.e., cost, route of administration, and pharmacokinetics) often determine the choice of triptan.

I would also like to thank Dr. Muncie for looking more closely into the issue of dexamethasone as adjunctive therapy for acute ▶

migraine. He correctly points out that a study of oral dexamethasone cited in a meta-analysis did not show impressive results. I agree that the evidence supports the use of parenteral—not oral—dexamethasone as an adjunctive treatment for acute migraine headache. Dr. Muncie is also correct that the doses used in the trials range from 8 to 24 mg, rather than 4 to 10 mg as listed in Table 3 of my article.

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Correction

The article "Treatment of Acute Migraine Headache" (February 1, 2011, page 271) incorrectly stated that oral dexamethasone has similar effectiveness as parenteral dexamethasone for abortive treatment of acute migraine headaches. The author cited a source that incorrectly listed the oral version of dexamethasone as being an effective treatment option for migraine headaches. The original source and our article should have listed parenteral dexamethasone only, not the oral version. In Table 3 (page 274-275) under the "Other Effective Therapies" section, the information on oral dexamethasone should not have been included as an effective therapy; the dosage for intravenous dexamethasone should have been listed as 10 to 25 mg one time, instead of 4 to 10 mg one time. On page 278, the last sentence of the section "Dexamethasone" should not have included the following: "one of these trials showed that oral dexamethasone is similar in effectiveness to the parenteral form." The online version of this article has been corrected. ■