

New Onset Migraine in the Elderly

Case History and Follow-up Submitted by Randolph W. Evans, MD

Expert Opinion by Kersti Bruining, MD

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New onset headache in elderly patients raises concern for secondary causes.

CLINICAL HISTORY

A 64-year-old woman reported a 4-month history of uncharacteristic headache that occurred about 2 to 3 times a month. She described a severe left or right hemicranial throbbing pain accompanied by nausea and sound sensitivity but no light sensitivity or aura. Attacks last 2 to 3 days. Acetaminophen and ibuprofen did not help. The only trigger she could name was fatigue. The patient had a history of episodic mild bifrontal "pressure" type headache without associated symptoms rapidly relieved by acetaminophen and occurring about once a month for many years. She denied shoulder or hip girdle aching or jaw claudication. Past medical history was entirely negative. Her only medication was Prempro (for the last 1 year). Neurological examination was normal.

Questions.—Could these new headaches be anything other than migraine? Is diagnostic testing recommended? How often does new onset migraine occur in those over age 60?

EXPERT COMMENTARY

This patient's headaches meet the criteria for migraine without aura, but new onset migraine at the age of 64 would be distinctly unusual. History is, of

course, most critical in our ability to make a diagnosis. Thus, I would urge the patient to try to recall her youth and very young adults years in search of prior migraine symptoms that may have remitted for decades. Migraine that persists beyond middle age is not unusual. In the GEM Study (which surveyed individuals with an upper age limit of 65) 15.7% of men in the 50- to 54-year age range had experienced migraine within the year; this was the peak 1-year prevalence among the age groups of men.¹ In women in this age range the 1 year prevalence was high: 24%. In the American Migraine Study, prevalence was only slightly lower in the same age ranges.² Unfortunately, available information regarding new onset migraine predates establishment of the International Headache Society criteria for migraine.^{3,4} In one older study migraine was reported to begin after age 50 in approximately 3% of sufferers.³ Clinical experience confirms this.

If further review of the patient's history confirms the headaches are new in onset, I believe further investigation certainly would be warranted, because approximately one-third of all headaches in the elderly are secondary to other disorders. If laboratory testing has not been done, a complete blood count and metabolic screen, along with an evaluation of thyroid function, would be appropriate to exclude systemic diseases that could lead to generally support the presence of a structural lesion. Even so, if we understand trigeminal nerve activation to be the final common pathway of all head pain, it would be reasonable to order an imaging procedure in this patient. The imag-

Address correspondence to Randolph W. Evans, MD, 1200 Binz, Suite 1370, Houston, TX 77004 or Kersti Bruining, MD, 110 S. Madsion St., Traverse City, MI 49684.

ing specifically should include the paranasal sinuses, particularly the sphenoid, because infections of the latter are a rare but potentially life-threatening source of headache.

Giant cell arteritis must be excluded in a patient of this age with new onset headache. Granted, this patient lacks many other clinical manifestations of giant cell arteritis, including temporal artery tenderness, jaw claudication, and polymyalgia rheumatica. Nevertheless, a Westergren method erythrocyte sedimentation rate and, if the rate is elevated, a C-reactive protein can help to exclude this possibility. In a study of temporal artery biopsy results in which the objective was early diagnosis of giant cell arteritis, the combination of an erythrocyte sedimentation rate above 47 mm/hr and a C-reactive protein about 2.45 mg/dL was found to give a specificity of 97% for detection of giant cell arteritis.⁵

The effect of hormone replacement therapy on the course of migraine is variable.⁶ The maintenance of a stable estrogen level rather than cyclic hormone replacement is optimal. For a woman who has not undergone a hysterectomy, a combined estrogen/progestin regimen is preferred, as has been prescribed in this patient; if the uterus has been removed, estrogen may be administered alone. Unfortunately, comparative data are not available regarding various hormonal preparations and delivery systems with regard to migraine prevalence. Assuming the diagnostic studies discussed above were unrevealing, clinical experience suggests attention should be paid to the temporal relationship in this patient between starting conjugated estrogens/medroxyprogesterone (Prempro) and the onset of her migraine headaches. Thus, my recommendation would be to work together with the patient's primary care physician or gynecologist

to change the hormone replacement therapy preparation. Reasonable options include lowering the estrogen dose, changing from one type of estrogen (eg, conjugated estrogens) to another (eg, synthetic ethinyl estradiol), changing from oral to topical dosing (eg, transdermal patches, percutaneous gels), or, if the forgoing are unsuccessful, androgens.⁷

FOLLOW-UP

An erythrocyte sedimentation rate was 4. A magnetic resonance image of the brain was normal. Six months later, the headaches were occurring about 1 time per month or less. A butalbital-acetaminophen-caffeine combination drug was beneficial as acute therapy.

REFERENCES

1. Launer LJ, Terwindt GM, Ferrari MD. The prevalence and characteristics of migraine in a population-based cohort. The GEM Study. *Neurology*. 1999;53:537-542.
2. Lipton RB, Stewart WF. Migraine in the United States: a review of epidemiology and health care use. *Neurology*. 1993;43(suppl 3):S6-S10.
3. Selby F, Lance JW. Observations on 500 cases of migraine and allied vascular headache. *J Neurol Neurosurg Psychiatry*. 1960;23:23-32.
4. Solomon GD, Kunkel RS, Frame J. Demographics of headache in elderly patients. *Headache*. 1990;30:275-276.
5. Hayreh SS, Podhajsky PA, Raman R, Zimmerman B. Giant cell arteritis: validity and reliability of various diagnostic criteria. *Am J Ophthalmol*. 1997;123:285-296.
6. Silberstein SD, Merriam GR. Estrogens, progestins, and headache. *Neurology*. 1991;41:786-793.
7. Fettes I. Migraine in the menopause. *Neurology*. 1999;53(4 suppl 1):S29-S33.