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Review

Managing migraine and other headache syndromes in those over 50☆

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ABSTRACT

Migraine in an older person may appear with sensory or motor phenomena ("late-life migraine accompaniments"), so that it may be confused with transient ischemic attack or stroke. An older patient may have cervicogenic headache in addition to migraine. Medication overuse headache is just as much of a problem in older patients as it is in younger ones. Abdominal migraine without headache can be seen in older adults as a migraine equivalent, just as it can occur in children. The most effective drugs for migraine prophylaxis in young people (divalproex, topiramate, metoprolol and propranolol) are similarly effective for those who are over the age of 50. Oral rescue drugs, including naproxen and hydroxyzine, are also useful in older adults. We need to remind older adults about the dangers of excessive use of caffeine in coffee, tea and energy drinks, since these substances can lead to daily HA and migraine equivalents.

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1. Introduction

Frequent headaches (HA) are seen in about 17% of those over the age of 65, according to one large epidemiologic study [1]. Others have reported the frequency of HA in the elderly to be as high as 50% [2], or as low as 12% [3]. The prevalence of migraine increases from age 12 to age 40, but in the 50–59-year cohort of the American Migraine Study, it still affected 20% of women and 7% of men [4]. Pascual and Berciano [3] found that serious conditions such as ischemic and hemorrhagic stroke, temporal arteritis, post-concussive HA, or intracranial neoplasm were more likely to be present in elderly patients who complain of HA (15%, compared to 1.6% of patients under the age of 65). Medications may be the cause of HA in as many as 8% of patients who present with HA [5]. Chronic daily HA is another group of patients that includes

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those with transformed migraine, chronic tension HA and hemicrania continua [6]. Medication overuse headache (MOH), a disorder that can result from the chronic overuse of analgesics, triptans, caffeine, or other HA remedies, has a prevalence of about 1–2% among those who are over the age of 65 [7]. Abdominal migraine, which is more common in those with a family history of migraine HA, usually emerges between the ages of 3 and 10 years, and rarely persists into adulthood [8]. We present here a case with onset over 50.

2. Methods

A literature search was performed for papers published up until December, 2012, using the reference database pubMed. The key words were as follows: migraine in older adults, elderly HA, late-life migraine accompaniment, cervicogenic HA, medication overuse HA, abdominal migraine in adults.

2.1. Case 1 vignette: late-life migraine accompaniment

This 51-year-old right-handed woman had a previous history of hypertension and migraine. She arrived in the emergency room (ER) with the chief complaints of nausea, vomiting, vertigo, weakness of the right face and traveling paresthesias up and down her left arm. She had been having HAs off and on for the last few weeks, but she did not have HA at the time of this ER visit. Her examination was remarkable for high blood pressure (177/94), right ptosis, diminished sensation over the right side of the body, an upgoing right toe, but no weakness over the right face or right body. By the second day, all her symptoms and signs had resolved, except for subjective vertigo. The diffusion weighted image sequences of the MRI scan showed no signs of a new cerebral infarction.

2.1.1. Diagnosis of late-life migraine accompaniment

In his first series of 120 late-life migraine accompaniments, Fisher [9] made the point that HA occurred in only 50% of the cases. In his second series, he reported that the patients ranged in age from 40 to 73 years (the same ages as those who commonly have cerebrovascular disease), but that the traveling paresthesias of migraine were different from the pattern of paresthesias seen in those with transient ischemic attacks and strokes [10]. The spreading depression of migraine [11] is the best explanation for the "march" of paresthesias in late-life migraine accompaniments. Forty percent of patients with migraine accompaniments in Fisher's second series had HAs [10]. This fits with our patient, who did not have HA at the time of her admission, even though she had a history of migraine, in addition to drug-overuse HAs.

2.1.2. Management of late-life migraine accompaniment

We started our patient on topiramate for HA prophylaxis, since it is one of several drugs that are recommended by the Quality Standards Subcommittee of the American Academy of Neurology for migraine prophylaxis [12]. Other Level A drugs that prevent migraine include divalproex sodium, metoprolol, and propranolol. Level A drugs are those that have been shown to be effective in at least two Class 1 clinical trials. This patient was also counseled against daily use of over-the-counter analgesic medications, since medication overuse is a common cause of chronic daily HA in older adults [7,13].

She was also counseled against the use of caffeine, since this can lead to daily HA [7].

2.2. Case 2 vignette: cervicogenic headache and migraine

This 54-year-old right-handed woman had a strong family history of migraine HA and a personal history of migraine with and without aura. She had a past medical history of hypertension, cervical spine disease and chronic daily HA. The HAs were usually right-sided and worsened significantly with certain repositioning maneuvers of the neck. She had trigger points bilaterally in the trapezius, sternocleidomastoid, and suboccipital musculature. There was limitation of range of motion of the head and neck in all planes of movement. Otherwise, her neurologic exam was nonfocal.

2.2.1. Diagnosis of cervicogenic headache

Cervicogenic HA is characterized by chronic continuous unilateral HA and neck pain that is exacerbated by neck movement, or sustained awkward head position [14]. Abolition of the HA with anesthetic blocks of various cervical nerve roots provides supportive evidence that the pain is attributable to the cervical spine disorder. In one recent epidemiologic study, 42% of those with cervicogenic HA had the co-occurrence of migraine [14], similar to our patient.

2.2.2. Management of cervicogenic headache and migraine

We started our patient on naproxen 500 mg every 12 h as needed for abortive therapy.

Topiramate 25 mg twice daily was given for migraine prophylaxis. Weekly physical therapy sessions were initiated for treatment of the patient's neck pain. After four months, the HA completely subsided, and the neck pain and range of motion improved. A multidisciplinary team approach for HA management, including physical therapy, has been shown to be effective in reducing the occurrence of a variety of HA syndromes [15]. Another treatment for cervicogenic HA includes blockage of the greater occipital nerve with a mixture of xylocaine and marcaine [14].

2.3. Case 3 vignette: medication overuse headache

This 67-year-old right-handed woman had a strong family history of migraine HA and a personal history of migraine HA with and without visual aura since the age of 13. She had a past medical history that was positive for diverticulitis, gastroesophageal reflux disease, gastritis, chronic diarrhea, and osteoarthritis. She came to the clinic with the complaint of chronic daily HA. An MRI had been performed a few years ago and was normal. She had been using a butalbital preparation daily since 1976. Her HAs had become steadily more severe and more frequent since that time. Now her HAs were occurring on a daily basis. She was not awakened at night with the HAs, and they were not worse when lying down. She denied jaw pain, snoring, or bruxism. Her neurologic examination was unremarkable. The ESR was normal. She denied excessive use of caffeine, tea, or energy drinks.

2.3.1. Diagnosis of medication overuse headache

Migraine is a common disorder that usually begins in adolescence or young adulthood, as it did in this patient. Episodic migraine is defined as occurring fewer than 15 days a month [16]. Medication overuse HA (MOH) is defined when HA occurs on 15 or more days per month, when the therapeutic agent is used excessively, and when it is used on a regular basis for three or more months prior to the worsening of the HA frequency and severity [17]. MOH can result from the overuse of analgesics, triptans, barbiturates, caffeine, or other drugs that are used acutely to manage HA [7]. Triptan overuse can produce MOH at a faster rate and with lower doses than butalbital or narcotics [17]. The prevalence rates of MOH (1–2%) are similar across different countries, and the mean age of onset is 53 [18]. There is a higher preponderance of women with MOH (74%) than men (26%). Among those who were over the age of