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Mokri B, Atkinson JLD, Piepgras DG: **Absent headache despite cerebrospinal volume depletion (intracranial hypotension).** *Neurology* 2000, **55:**1722–1724.

Significance: Intracranial hypotension characteristically causes an orthostatic headache. Most cases are caused by lumbar punctures, but other causes of cerebrospinal leaks such as shunt failures or torn dural root sleeves are also common. As the syndrome progresses and there is meningeal involvement, cervical stiffness, nausea, vomiting, and other symptoms of meningitis can be noted. These three cases demonstrate that headache is not invariable in this syndrome. The incidence of asymptomatic intracranial hypotension is not known.

Findings: Three patients are reported with intracranial hypotension and pachymeningeal enhancement on MRI, but without headache. Two had over draining intraventricular shunts. The third had extravasation of contrast into the cervical and thoracic epidural space on CT contrast myelography. Initially this patient did have an orthostatic headache, which resolved following an epidural blood patch. A follow-up MRI scan continued to demonstrate extravasation into the same area and there continued to be pachymeningeal enhancement, yet the patient was asymptomatic.

Freitag FG, Diamond S, Diamond M, *et al.*: **An open use trial of tiagabine in migraine.** *Headache Q* 2000, **11:**133–134.

Significance: This study investigated a group of patients who were previously intolerant or refractory to divalproex sodium, which is an FDA-approved agent for migraine prophylaxis. There are no medications used in the prophylaxis of migraine that were developed specifically for that purpose. The more recent agents found to have some efficacy are antiepileptic drugs. This open-label trial suggests that tiagabine deserves further investigation in double-blinded, placebo-controlled trials.

Findings: In 41 patients treated with 4 to 16 mg of tiagabine daily for a minimum of 3 months, 33 demonstrated a 50% or better reduction in the frequency of their migraine attacks. The adverse events reported were mild and uncommon.

White AR, Resch KL, Chan JCK, *et al.*: **Acupuncture for episodic tension-type headache: a multicenter randomized controlled trial.** *Cephalalgia* 2000, **20:**632–637.

Significance: Most studies to date dealing with the treatment of tension-type headache with acupuncture have been uncontrolled. Although this study evaluated only the brief needling technique and cannot be applied to other forms of acupuncture, there is no evidence that it was efficacious in the treatment of episodic tension-type headache.

Findings: A multicenter randomized trial in patients with episodic tension-type headaches studied treatment with brief needling acupuncture versus a sham control procedure. A total of 50 subjects were treated for up to 3 months. No differences were demonstrated in the number of days with headache in the two groups. However, both groups reported a significant improvement in their headaches during the course of the study.

Dodick D: **Polysomnography in hypnic headache syndrome.** *Headache* 2000, **40:**748–752.

Significance: Hypnic headaches occur exclusively during sleep and tend to occur in persons over age 60. Some respond to the use of lithium carbonate, but melatonin and tricyclic antidepressants may also be effective. The first patient studied in this paper had severe obstructive sleep apnea, and the headache coincided with the onset of rapid eye movement (REM) sleep. The dramatic cessation of headache symptoms with continuous positive airway pressure (CPAP) suggests that polysomnography may be an appropriate test for patients with hypnic headaches. Oxygen desaturation and the onset of REM sleep are also known generators of migraine attacks in some patients.

Findings: Three patients with hypnic headaches underwent polysomnography. The first patient was demonstrated to have severe obstructive sleep apnea. During this study, the patient wakened with a severe headache coinciding with the onset of the first REM sleep episode. After treatment with CPAP the patient reported an immediate and complete relief of headaches. The second patient's polysomnogram was only mildly abnormal with poor sleep efficiency, and the patient did not develop a headache attack. The third, who was 46 years old, had a normal study but was also asymptomatic for headache during the polysomnogram.

Packard R: **Treatment of chronic daily posttraumatic headache with divalproex sodium.** *Headache* 2000, **40:**736–739.

Significance: Divalproex sodium is FDA approved for the prophylaxis of migraine and has also demonstrated efficacy in treating transformed migraine and, to a lesser degree, chronic tension-type headache. This study indicates that it may be effective in treating posttraumatic chronic daily headache. Amitriptyline has also been shown to be useful in treating these individuals but is frequently ineffective or not well tolerated. It should be noted that "chronic daily posttraumatic headache" is not an accepted IHS diagnosis. The study did not state whether patients had a history of a primary headache syndrome prior to the trauma.

Findings: One hundred patients with posttraumatic chronic daily headache were treated with divalproex for a minimum of 2 months. A total of 60% reported mild to moderate improvement, 26% showed no response, and 14% discontinued treatment because of adverse events, which included weight gain, tremor, and alopecia. Starting doses of 250 mg/d were used and increased up to 1500 mg/d in some individuals if needed.

Lipton R, Baggish JS, Stewart WP, *et al.*: **Efficacy and safety of acetaminophen in the treatment of migraine.** *Arch Intern Med* 2000, **160:**3486–3492.

Significance: These results are significant and suggest only a slightly reduced efficacy of acetaminophen compared with oral triptan therapies. Patients suffering severe disability were excluded and this study was a single attack trial. Therefore, it is not directly comparable to most of the efficacy data on triptans. Consistency of response, an important benefit with triptan therapies, cannot be assessed from this study. Four-hour data as well as recurrence rates are not addressed. However, given the cost differential and safety concerns in some patients taking triptans, this subject deserves further investigation.

Findings: This study used 1000 mg of acetaminophen versus placebo to treat an acute migraine attack. There were 147 patients in the acetaminophen group and 142 in the placebo group. The study excluded subjects who required bed rest or who vomited more than 20% of the time with their attacks. Patients were treated for moderate to severe pain and the end point was reduction to mild or no pain at 2 hours. The acetaminophen-treated group achieved 57.8% efficacy and the placebo group 38.7% efficacy at 2 hours. A total of 22.4% were pain free at 2 hours compared with 11.3% with placebo.