

IMPROVING CHANCE FOR CURE

Penn Headache Center

For more than 40 years, John James (not his real name) lived with headaches. Diagnosed as suffering from migraine, he was prescribed high doses of antidepressants and beta blockers. The headaches persisted.

"When a patient experiences prolonged head pain and requires the continued use of analgesic medication, a fresh look for a solution to the problem is called for," said Roger Farber, MD, director of the Headache Center in Penn's Neurological Institute.

"It may mean excising a sinus tumor, eliminating a source of stress, prescribing physical therapy for a bad back or neck, or taking away the nasal spray that the patient has become dependent on, but there should be intervention. The bottom line is this — there is really no role for use of chronic pain medication in the management of headache."

Penn's Headache Center brings together specialists in neurology, anesthesia pain control, neuro-ophthalmology, oral medicine/oral surgery, otorhinolaryngology, psychiatry, and sleep disturbance.

Patients undergo a thorough evaluation, including a careful interview and exhaustive questionnaire. The evaluation provides the basis for an individualized therapeutic program.

James' interview and questionnaire revealed that when driving, his neck pain was so severe that he could barely turn to look out the side or rear windows. When an MRI showed degenerative changes in the neck, Farber

nerve block, pinpointing the neck as the pain source.

Physical therapy was prescribed that included exercise to strengthen the neck, hot packs, ultrasound, and massage. Within a few months, his headaches subsided, his mobility improved, and he reported enjoying life for the first time in 40 years.

James' condition had been misdiagnosed as migraine, which is the most common cause of headaches. Penn's Headache Center has a number of innovative ways to treat migraine ranging from pinpointing the triggering agent (and helping the patient eliminate the trigger) to prescribing new neurochemically based blocking medications. "These blockers range from the good-old-fashioned ergot drugs to lithium,"

Farber said.

"Some patients only have migraines at certain times — women around their menstrual period for example. Now, they can take blockers six or seven days a month instead of all the time. One new agent, Sumatriptan, can be taken after the headache has started and abort it."

The condition of migraine continued on next page

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suspected the neck as the headache source. "Patients with degenerative disease in the neck also frequently experience headaches," said Farber.

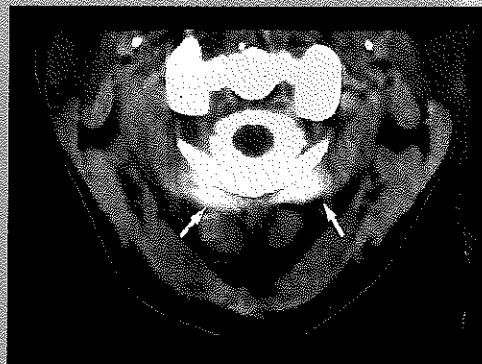
The next step was a bilateral block performed on James' occipital nerves by anesthesia pain management specialist Kathleen M. Veloso, MD. The headache disappeared during the



The normally positioned cerebellum in an asymptomatic patient.



The cerebellar tonsil sits lower in the neck due to a spinal fluid leak.



The arrows show location of spinal fluid leak.

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sufferers, as well as patients whose headaches have other origins, are often exacerbated by inappropriate, excessive, or inadequate medication.

Helen Smith (not her real name), 33, was prescribed large amounts of Xanax (an addicting benzodiazepine anti-anxiety agent) and Stadol (a narcotic nose spray) for recurring intense pain over her right eye. "She would get a few hours of relief," Farber said, "then the headaches would return."

She was experiencing what Farber describes as a rebound effect. "After a period of taking these medications, the nerve cells become dependent. You get relief for awhile, but as soon as the level of the medication in your blood drops, there is a rebound of the head pain. It is essentially an addictive process."

Like all Headache Center patients, Smith began her evaluation with the detailed questionnaire and interview. And, Farber noted, "we stopped all medication until we could get to the bottom of the problem."

The process revealed that she

was also a long-time user of an over-the-counter nasal pseudoephedrine decongestant spray. Farber referred her to Donald C. Lanza, MD, otorhinolaryngologist. Lanza diagnosed markedly damaged nasal mucosa, resulting from a badly deviated septum and possibly the use of an over-the-counter nasal spray. "We pre-

scribed a steroid nasal spray, and now she's off the narcotic, half-way off the Xanax, and she has no headaches,"

said Farber.

The causes of headache are as varied as the patients. One patient was referred to Farber after a spinal fluid leak lowered her cerebrospinal fluid pressure. When she lay flat, the pain subsided; when she sat up, it returned. Physicians at another hospital had correctly diagnosed a leak, but couldn't locate it.

At Penn, a myelogram was performed to find the exact location of the leak in the neck. Then, anesthesia pain management specialist Veloso sealed the leak with a "blood patch." She threaded a very fine catheter to the leak site and injected about 15 cc's of the patient's own blood to form a rubbery, natural patch. To compensate for the lost CSF, Penn physicians also prescribed the asthma drug theophylline to increase CSF production.

Increased CSF production was particularly important because the leak had allowed the patient's cerebellum to shift downward. Six months later, the treatment had completely cured her headaches, and her brain and CSF had been restored to a normal state.

Pain in and around the eye often masquerades as headache pain. "There are conditions in both the young and the elderly where pain around the eye precedes visual loss," said Steven L. Galetta, MD, a neuro-ophthalmologist with appointments in the Departments of Neurology and Ophthalmology.

Mary Jones (not her real name), 74, presented with left-side throbbing headaches, without the vomiting, nausea, or other symptoms consistent with migraine. She had trouble chewing her food and double vision — signs of an underlying neurological problem. Her erythrocyte sed-

Disorders Treated

Penn's Headache Center specialists treat a wide variety of disorders including:

- Atypical Face Pain
- Cervical Spine-related Headache
- Chronic Daily Headache (Rebound)
- Classic Migraine
- Cluster Headache
- Common Migraine
- Hemiplegic Migraine
- Paroxysmal Idiopathic Hemicrania
- Post-traumatic Headache
- "Sinus" Headaches
- Temporomandibular Joint Disorders (TMJ)
- Trigeminal Neuralgia
- Visual Hallucinations

imentation rate was near normal, but her other symptoms called for further testing to distinguish between an arteritic and nonarteritic cause of her vision problems.

Galetta used fundus fluorescein angiography, in which dye is injected into a vein and the time required for it to appear in the eye's circulation is recorded. There was significant delay in the time required for the dye to appear in the choroid layer of Smith's eye, supporting a diagnosis of giant cell arteritis, an inflammation of the blood vessels in and around the eye. Galetta prescribed corticosteroids, which not only relieved Smith's headaches, but preserved her vision as well. A subsequent temporal artery biopsy confirmed the diagnosis of giant cell arteritis.

"When a patient experiences a loss of function from a headache or from the medication being used to treat the headache, they should be referred to a center such as ours," Farber said. "Because there are so many potential causes, multidisciplinary input and multimodal approaches are required to sort these problems out in their unique manifestations."

■ For more information use PENNLine to call: Roger E. Farber, MD
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MRI shows severe degenerative cervical spine disease, which can cause headaches.

