

MRI Helps Find Cause of Orthostatic Headache

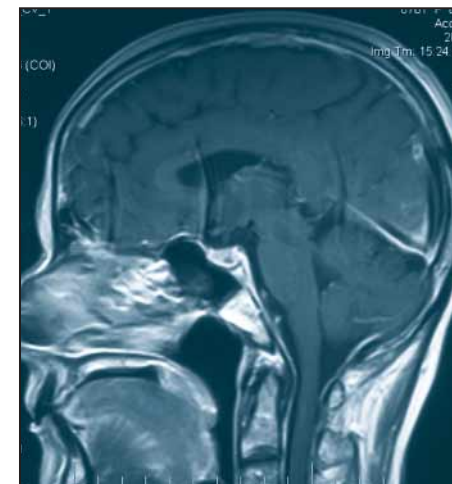
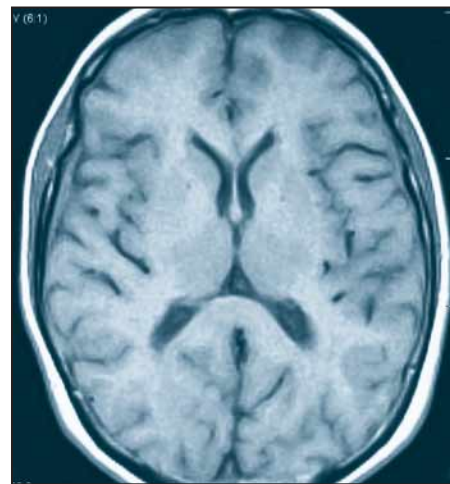
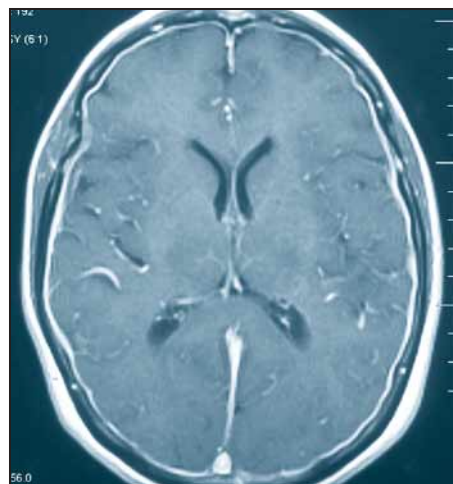
BY KERRI WACHTER
Senior Writer

Diffuse meningeal enhancement on MRI with gadolinium contrast can confirm the diagnosis of intracranial hypotension when a patient presents with orthostatic headaches, said Todd J. Schwedt, M.D., a neurology fellow at the Mayo Clinic in Scottsdale, Ariz.

Patients who present with ongoing severe, diffuse, pressure headache that is worse when standing and relieved upon lying down may have intracranial hypotension due to a cerebrospinal fluid (CSF) leak. They may also experience very intense pain whenever they sneeze or cough, or with Valsalva maneuvers. The headaches may also be accompanied by vomiting and diminished hearing. Caffeinated beverages provide some relief from the headaches.

The differential diagnosis for orthostatic headache includes spontaneous intracranial hypotension (as in these cases), postdural puncture (resulting from a lumbar puncture or spinal anesthesia), and CSF fistula. Additional symptoms of spontaneous intracranial hypotension due to CSF leak can include diplopia, dizziness, visual blurring, interscapular pain, and radicular, upper extremity symptoms.

On MRI of the brain with gadolinium contrast, the classic sign of intracranial hypotension due to a CSF leak is contiguous, pachymeningeal enhancement, Dr.



Axial MRI with gadolinium contrast shows diffuse contiguous pachymeningeal enhancement (left). Without gadolinium (center), MRI looks normal. There was no evidence of cerebellar descent in this sagittal MRI with gadolinium.

Schwedt said. Spontaneous CSF leaks also can cause generalized sagging of the brain with downward displacement of the cerebellar tonsils that is clearly visible on MRI with gadolinium.

MRI of the spine with and without contrast may not be as helpful. Despite the presence of a CSF leak, spinal MRIs may appear normal, with no visible collection of CSF. On occasion, spinal MRI may show pooling of extraarachnoid CSF, but this rarely identifies the exact location of the leak.

Autologous epidural blood patch is used to treat the CSF leak, even when MRI has not located the exact site of the leak. A history of minor trauma, orthostatic

headaches, hearing changes, and MRI findings are considered reason enough to perform the blood patch.

For an epidural blood patch, 10-20 mL of autologous blood is injected into the epidural space. "Injection into the lumbar region can be adequate since the blood may travel to the site of the dural leak and injection will result in elevated CSF pressure," Dr. Schwedt said.

Although the exact mechanism by which an epidural blood patch provides relief of symptoms is controversial, pain relief may be due to the formation of a gelatinous tamponade that stops the CSF leak and provides an immediate elevation of CSF pressure. Alternatively, the patch

may increase CSF pressure by compression of the thecal sac, effectively reducing the volume of the intrathecal space. Relief usually occurs fairly quickly—within 30 minutes in many cases. The technique is typically performed by anesthesiologists.

Performing a lumbar puncture to see if a patient with such symptoms has a low opening pressure is an option. The CSF pressure may or may not be low, and the CSF may contain increased levels of protein and erythrocytes. However, given the diffuse meningeal enhancement seen on MRI and the clinical presentation, a clinical diagnosis can be made and a lumbar puncture avoided, as it has the potential to worsen the patient's symptoms. ■

Cognitive Factors Predict Intensity Of Pain in Vulvar Vestibulitis

BY DIANA MAHONEY
New England Bureau

CAMBRIDGE, MASS. — Certain cognitive factors are significant predictors of pain intensity and sexual impairment in women with vulvar vestibulitis syndrome, Geneviève Desrochers said in a poster presentation at the annual meeting of the Society for Sex Therapy and Research.

The findings of her study suggest that targeted cognitive-behavioral therapy might help mediate the severe pain associated with the chronic, persistent inflammatory condition.

Hierarchical regression analysis of data obtained from 67 women with vulvar vestibulitis syndrome showed that lower levels of pain self-efficacy (confidence in one's ability to perform a range of tasks despite pain) and higher levels of pain catastrophization (a negative cognitive response to, or anticipation of, pain) were both associated with more intense pain during intercourse, reported Ms. Desrochers, a Ph.D. candidate in psychology at the University of Quebec, Montreal.

All of the women enrolled in the study had a prior diagnosis of vulvar vestibulitis syndrome. As part of the investigation, the women underwent a gynecologic examination and completed a structured interview and standardized questionnaires focusing on pain self-efficacy, pain catastrophization, anxiety, and pain during intercourse.

The regression analysis also showed that catastrophization remained a strong predictor of the severity of pain symptoms after controlling for state-trait anxiety and self-efficacy. "Higher levels of catastrophization were still related to more severe pain," Ms. Desrochers wrote. Of the variables, only self-efficacy was a good predictor of global sexual functioning after controlling for pain intensity and state-trait anxiety, with lower self-efficacy predicting increased sexual impairment.

"We did find that [lower levels of] state-trait anxiety mediated the role of catastrophizing in pain intensity," Ms. Desrochers noted.

The findings of the study are consistent with a cognitive-behavioral model of chronic pain,

"and they may be important components to consider for sex therapy with this population of women," she suggested.

In a separate poster discussion at the meeting, which was also sponsored by the American College of Obstetricians and Gynecologists, Mélanie Jodoin, also a Ph.D. candidate in psychology at the university, presented additional data from the same investigation linking dyadic adjustment to psychological distress and sexual impairment in women with vulvar vestibulitis syndrome.

"The results of hierarchic regression analyses revealed that higher levels of dyadic adjustment were associated with better sexual functioning and lower psychological distress," she reported.

The analyses also linked higher levels of state anxiety to increased dysfunctional dyadic adjustment, even after controlling for psychological distress and intensity of pain, suggesting that dyadic adjustment is a "powerful predictor of sexual impairment in women with vulvar vestibulitis syndrome, despite their pain intensity," Ms. Jodoin wrote. ■

Migraines Affect One-Third Of Allergic Rhinitis Patients

BY KATE JOHNSON
Montreal Bureau

SAN ANTONIO — More than 33% of patients with allergic rhinitis experience migraine headaches, compared with 3.5% of people without allergic rhinitis, according to a study by investigators in New York City.

The findings highlight a previously unrecognized potential target for migraine relief—that of histamine release in the nasal passage, said Nausika Prifti of Long Island College Hospital and one of the investigators in the study.

Oral antihistamine therapy fails to address this specific mechanism for relief of migraine pain, but nasal corticosteroids hold promise in this regard by addressing vasodilation and inflammation, she told this newspaper.

"Since there is a release of histamine in close proximity to the central nervous system, and histamine is a known releaser of nitric oxide, which is a key mediator to migraine headaches, there is more of a chance that

nasal steroids might work on migraines by reducing the effects of histamines," she said.

In a poster that she presented at the annual meeting of the American Academy of Allergy, Asthma, and Immunology, Ms. Prifti and her colleagues outlined their survey of 133 patients who received care at an allergic rhinitis (AR) clinic.

A total of 76 patients met the criteria for AR and 57 did not. In the AR group, 26 patients (34%) had headaches meeting the criteria for migraines, whereas 2 patients (3.5%) in the non-AR group met these criteria.

Analysis of the data showed the risk of migraine headache was 14 times higher among patients with AR than among patients who did not have AR.

"We were surprised," she said. "The doctors working with AR patients knew there was a trend toward migraine headaches, but they didn't expect it to be so high."

Many patients thought they had sinus headaches and were not aware that they suffered migraines, she added. ■