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), postural puncture (resulting from a lumbar puncture or spinal anesthesia), and CSF fistula. Additional symptoms of spontaneous intracranial hypotension due to a 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. Schwedt said. Spontaneous CSF leak 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 extrarachnoid 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 proteins 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.

Hierarchic 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.

"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 13% 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.

A total of 76 patients met the criteria for AR and 57 did not. In the AR group, 34% of patients with AR had migraine headaches. Ten patients with AR had migraine headaches and the criterion 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.