Florida Ear and Balance Center, P.A.

James S. Atkins Jr., M.D.

Imbalance, Dizziness and Hearing Loss
Product Description
The Epley Omnianx® is a device to assist you in the diagnosis and treatment of balance disorders and vertigo, including benign paroxysmal positional vertigo.

Diagnose and treat variants and resistant cases.
Variant conditions can be difficult to diagnose. Once diagnosed, canal conversions, other complications and resistant cases may require multiple combinations of maneuvers. (For example, 360-degree rotations such as "the forward flip" for apex block.)

Improve patient management and care.
Intuitive data measurements, playback, and printed report allow comparisons and standardization.

See more and do more.
Correlates nystagmus to angle of canals. Each sequential maneuver is based on the intervening nystagmus observation, as well as the prior observations.

Improve ability to manage physically-limited patients.
Maneuvering patients who are frail, obese, or disabled is more convenient, comfortable and safe for both patient and practitioner.

Better VNG testing. Space-saving.
In addition to doing more for your BPPV patients, the Epley Omnianx® can leverage your current VNG System, facilitating VNG testing without additional space or change to your workflow.
1. Automated maneuvers selected from menus.
2. Real-time spatial orientation of canals and patient position.
3. Torsional analysis to assist in localizing variants of BPPV. State-of-the-art high-resolution cameras for crystal clear nystagmus.
4. Session log shows positions and measurements. Users select pre-programmed remarks for type, duration, severity of nystagmus, etc.
BPPV: State of the Art in Diagnosis And Treatment

By Stan J. Polley

Vertigo is a complaint that often causes patients to seek a consultation with an otolaryngologist. While vertigo—or dizziness—can be a symptom of an underlying medical, neurological, or otologic disorder, the most common cause is benign paroxysmal positional vertigo (BPPV). BPPV is a condition that is usually easy to diagnose and can often be treated in the physician's office using noninvasive techniques. Approximately half of all cases of BPPV are considered primary or idiopathic. Secondary causes of BPPV include head trauma, viral labyrinthitis, Ménière's disease, migraines, and ear surgery. BPPV can occur in individuals of all ages, but it is more common in people over 50 years of age.

Diagnosis

BPPV is diagnosed using the Dix-Hallpike maneuver. The patient is quickly taken from a sitting to a prone position with the head hanging over the end of the examining table and turned approximately 45 degrees to the side being tested. The physician then examines the patient's eyes for nystagmus. A patient with torsional nystagmus beginning a few seconds after the Dix-Hallpike maneuver almost certainly has BPPV; however, a negative Dix-Hallpike does not automatically rule it out. Dispersion of the particles from the patient's normal movements throughout the day can result in a negative Dix-Hallpike examination in a patient suffering from BPPV.

Gerard Gianoli, MD, of the Ear and Balance Institute in Baton Rouge, LA, said, "If someone has a very clear history for BPPV and the Dix-Hallpike test is normal, I'll bring them back first thing in the morning to repeat the test. If that one is normal, I'll bring them back at least a third time before ruling out BPPV."

Traditional Treatment Options

BPPV is essentially a self-limiting condition, which will often resolve spontaneously if left untreated. However, waiting several weeks, months, or even years for symptoms to resolve can have a significantly negative impact on the patient's quality of life.

Traditionally, vestibulosuppressant medications have been used to treat vertigo, but they have met with only limited success. Medication may provide minimal relief for some patients, but it is designed to treat the symptoms of vertigo, not the underlying cause. Vestibulosuppressant medications can also have undesirable side effects, such as dizziness and sleepiness.

Vestibular rehabilitation therapy (VRT) is often the treatment of choice. A new apparatus will enable more effective diagnosis and treatment of patients suffering from BPPV and other vestibular disorders.

Lawyers Tell Physicians How to Protect Themselves from the Pitfalls of Employment

By Margot Promer

WASHINGTON, DC—More often than not, today's medical offices are businesses employing numerous staff people, as well as other physicians. In a seminar at the recent annual meeting of the American Academy of Otolaryngology—Head and Neck Surgery, panelists described the many legal pitfalls of employing people in a medical office. Most of them revolved around accusations and charges of discrimination—which often appear difficult to avoid.

You Can Hardly Say Anything Anymore

Sally Garr, JD, a partner in the Washington, DC, law firm of Patton Boggs and Chair of its Employment Law Group, spent more than a half-hour describing the many ways in which an employer can be sued for discrimination—and the many ways in which he or she can lose the case.

Although some of the examples she presented were more relevant to academic institutions and hospitals, Ms. Garr emphasized that none were beyond the reach of any practice.
Targeted Therapies

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between rash and response. There was no severe rash in patients with progressive disease," he said.

In conclusion, Dr. Hirst said that "the combination of cetuximab and paclitaxel used in this study was feasible and associated with very encouraging activity in the first-line treatment of patients with recurrent and/or metastatic squamous cell carcinoma of the head and neck."

Biologic markers, such as FISH analysis, do not seem to predict efficacy to this treatment combination. Further analysis of potential predictive factors or combinations of them is ongoing.

"These results suggest that cetuximab and paclitaxel may play an important role for patients with recurrent head and neck cancer. Randomized trials are warranted," Dr. Hirst said.

The discussant for the study, Marshatt Poster, MD, Medical Director of the Head and Neck Oncology Program at Boston's Dana-Farber Cancer Institute, commented, "Dr. Hirst's study has a fairly impressive complete response rate of 24 percent. Unfortunately, the data are a little early, so progression-free survival, although five months, is really premature."

"Notably, the toxicity was modest for a palliative regimen except for rash, which is of course a marker of response to cetuximab. But neutropenia and rash appeared to be manageable on this weekly regimen. It seems then that the side effect of rash remains the best predictor of disease control."

Dr. Kim's study "established a maximum total dose for the combination of erlotinib, docetaxel, and cisplatin," Dr. Posner said in his discussion's remarks. "Again, there was a low complete response rate of 8 percent, but the overall response rate was an impressive 66 percent. There was also an impressive median survival, with progression-free survival of six months, and, notably, 48 percent of patients were alive at one year. Except for neutropenia, toxicity was mild for an every-three-week regimen."

Researchers should think strongly about combination therapies with cytotoxic and targeted agents, he said. "Cetuximab and erlotinib have single-agent activity, and cetuximab arguably has greater activity in Phase II single-agent trials than erlotinib does. Cetuximab activity is additive with cisplatin. There are no solid data with taxanes for either agent."

Both studies showed increased response rates compared with historical controls of roughly 60%, Dr. Posner continued. Paclitaxel and docetaxel as single agents show response rates of 36% and docetaxel-cisplatin combinations show response rates in the 40% range. Cisplatin as a single agent produces a response rate of 10% to 15%. Cetuximab as a single agent has a 10% to 14% response rate and, in combination, with cisplatin, 25%. "From a historical point of view, these agents appear to be better than single or double," he said.

"Randomized trials will be necessary to compare combination therapies with targeted agents. I believe a crossover design should be used to estimate the real impact on survival. For palliation, toxicity and progression-free survival are major considerations for patients."

"The clinical assessment of rash still remains the best predictor of benefit with cetuximab. It would be very important to identify other prognostic factors to help us to determine who might benefit from the use of cetuximab," Dr. Posner said.

BPPV

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is a noninvasive approach that has been used in the past to treat BPPV with limited effectiveness. Through repeated positional and balance exercises, the goal of VRT is to desensitize the balance system to the movements that cause the patient's feelings of vertigo. The primary drawback to VRT is that it takes several sessions to achieve any result, and the treatment itself induces repeated bouts of vertigo for the patient. Repeated therapy sessions can also be quite costly.1

Canalith Repositioning

For more than a decade, canalith repositioning techniques have been used to treat BPPV with good success and are now generally considered to be the standard of care. The Epley maneuver and the Semont maneuver, named after their inventors, have both shown high rates of resolution of BPPV when performed correctly. Both procedures involve moving the patient through a series of positions designed to guide the displaced otoliths that cause BPPV into a less sensitive location. The primary difference between the two procedures is that the Semont maneuver uses quick, forceful movement of the patient, whereas the Epley maneuver is gentler, relying on gravity to maintain inertia to move the otoliths through the canal.

Some experts advocate the use of a mask to block the oscillatory stimulation necessary to move the otoliths through the semicircular canals. A 1995 study by John Li, MD, showed that the use of masked vibration during repositioning increased the success rate from 60% (in the nonvibration group) to 92% (in the vibration group).2 The literature since that time has shown mixed results regarding the advantage of using masked bone oscillation.

Dr. Li believes that using oscillation, with or without a device, can help improve results. Ultimately, it's a matter of physician preference. He stated, "The bottom line is, do you prefer to shake the ketch or not? Although not mandatory, shaking should work better."

The success of canalith repositioning is measured by the patient's subjective report of resolution of symptoms. For both the physician's objective observation of the disappearance of nystagmus. The use of infrared goggles and a TV monitor can provide real-time observation of nystagmus as the patient is maneuvered into various positions. The physician can also readily identify changes in the type of nystagmus, which can indicate a change in location of the displaced otoccius, and thus a need to change strategies.

"If a rotational nystagmus changes to lateral nystagmus, you know you've converted to a horizontal canal problem," said Dr. Li.

Dr. Li added, "The use of infrared goggles with a TV monitor greatly improves diagnostic ability and the physician's ability to target which semicircular canal is affected."

Surgical Intervention

A small percentage of patients may fail noninvasive efforts to correct BPPV or have frequent recurrences of symptoms, requiring repeated procedures. In these cases, surgery may offer the best answer. Surgical neurometry, or section of the posterior ampillary nerve, has demonstrated high efficacy in resolving vertigo. The surgery, however, is technically difficult, and few surgeons have performed the procedure often enough to have become highly proficient. There is a high risk of sensorineural hearing loss associated with singular neurometry.

The most common surgical intervention for BPPV is posterior semicircular canal occlusion. The semicircular canal lumen is obstructed with a plug fashioned from bone dust and fibrinogen glue, immobilitizing the fluid in the canal. This procedure has shown a high rate of success and is much less technically demanding than the singular neurometry. The primary risk is posterior semicircular canal occlusion is also hearing loss, but there is a much lower incidence than that associated with singular neurometry.

The Epley OmmiX

A new treatment is now available through Vesticon, Inc., for individuals with BPPV. John Epley, MD, inventor of the Epley maneuver and principal investigator for Vesticon, has developed a computerized patient positioning apparatus for more effective diagnosis and treatment for patients suffering from vestibular disorders, including BPPV. This apparatus, called the "Epley OmmiX," can rotate patients through 360 degrees in any plane without their bodies and necks being manipulated and twisted. Because the patient is strapped immobile in the chair, this device can be used to treat patients who may not be amenable to manual manipulation on an examining table, such as the morbidly obese and those with some degree of paralysis or arthrosis. The device collects data in real time, including correlating the patient's spatial orientation with 3D eye movement measurements, and it prints out a report for billing and patient management.

Dr. Epley said of the device, "We've been able to cure almost 100% of BPPV patients using the OmmiX. I haven't seen the need to do surgery in probably five years."

The OmmiX is marketed by Vesticon and is already being tested at six sites in the United States and one site in Australia.

Dr. Epley concluded that probably the most important thing that otolaryngologists can do is hone their ability to recognize and interpret nystagmus. He suggested that physicians who regularly see patients with BPPV might benefit from taking a course on diagnosis and treatment of the condition.

He stated, "The nystagmus characteristics tell you quite a bit about what's going on in the inner ear, and we're learning more and more how to interpret that information and put it to good use."

References


