Restless Legs Syndrome Undetected, Mismanaged

BY BRUCE K. DIXON
Chicago Bureau

CHICAGO — Restless legs syndrome affects between 5% and 15% of the population and is often manageable, yet it continues to be misdiagnosed and underreported.

Dr. Penny Tenzer told the American Academy of Family Physicians annual scientific conference that a simple mnemonic, URGE (from the words uncomfortable and urge, rest, getting up, and evening), helps identify key RLS symptoms:

- ▶ An uncomfortable feeling in the legs, accompanied by an urge to move.
- ▶ Rest or inactivity make it worse.
- ▶ Getting up and moving makes it better.
- ▶ Symptoms typically persist in the evening, often making sleeping difficult.

"I ask patients with suspected RLS is, 'do your legs keep you up at night?' That may be the first clue," she said. If the patient answers "yes" to the rest of the questions, and there's no other apparent reason for the symptoms, then he or she has RLS.

Primary RLS likely is influenced by genetics, especially where onset occurs before the age of 45 years, she noted.

Iron deficiency, pregnancy, end-stage renal disease, peripheral neuropathy, medications, and excessive caffeine consumption may worsen symptoms, said Dr. Tenzer, director of the residency program in the department of family medicine and community health at the University of Miami.

In addition, 85% of RLS patients also have a condition called periodic limb movements of sleep (PLMS), which is marked by spontaneous jerking of a limb. "A finding of PLMS supports a diagnosis of RLS," she said. Other comorbidities include depression, anxiety, neuropathy, narcolepsy, and apnea.

"The last supporting criterion is to give the patient a test dose of dopamine, which eases RLS symptoms," she advised.

RLS pathophysiology relates to dopaminergic dysfunction and iron use and storage, and decreases in iron concentration in the substantia nigra and the putamen correlate with RLS severity. "After the URGE questions, check the patient for ferritin saturation. A ferritin [reading] under 40 mcg/L may be indicative and below 20 mcg/L definitely indicative that treatment is needed."

Before beginning pharmacotherapy, one should advise lifestyle changes such as reducing or eliminating caffeine and alcohol intake and exercising. Even mental tasks, such as doing a crossword puzzle, help.

Dopaminergic agonists, which include pramipexole and ropinerole, are the sole FDA-approved class of drugs for the treatment of primary RLS. Another option is the dopamine precursor, levadopa. Sedative-hypnotic agents often are prescribed, and patients with painful RLS may be given an anticonvulsant or opioid, she noted.

"[Dopaminergic] agonist therapy can be started in those whose symptoms occur more than twice a week. Dosages are lower than those used in Parkinson's disease. If symptoms occur less often and sleep is a problem, consider using an opioid or gabapentin as a third line, though usually two successive dopamine agonists are used."

Dopaminergic agents require titration, and decisions to use these agents for RLS should not be based solely on the treating physician's experience with Parkinson's, which is a different disease, she cautioned.

In patients whose RLS occurs nightly, Dr. Tenzer advised avoiding levadopa-carbidopa therapy because long-term use of these drugs can produce a worsening of symptoms and symptom rebound.

Dr. Tenzer is on the speakers' bureau for Boehringer Ingelheim, which manufactures and markets Mirapex (pramipexole). ■

Sleepless AD Patients and Caregivers Benefit From Nondrug Interventions

BY BRUCE K. DIXON
Chicago Bureau

CHICAGO — Nonpharmacological strategies can help bring relief to Alzheimer's disease patients beset by sleep disturbances and those struggling to care for them in the home setting.

"Behavioral and environmental approaches to maintaining restorative sleep, such as improving physical fitness, adjusting sleep and dietary habits, increasing exposure to light, and altering the home environment, often can make life much better for the ill individual and his or her caretaker," Sue McCurry, Ph.D., told a conference on dementia sponsored by the Alzheimer's Association.

Dr. McCurry and her colleagues at the University of Washington have been developing psychosocial strategies to reduce affective and behavioral disturbances common to people with Alzheimer's disease (AD).

Family members make up the majority of AD caregivers, yet proof of efficacy of such interventions has come more slowly to the home setting than it has to nursing homes and other long-term facilities, said Dr. McCurry, research professor at the Northwest Research Group on Aging and the Alzheimer's Disease Research Center at the UW School of Nursing.

"My message is geared more to family members and aides …those who are actually providing hands-on care in the home, small board and care home, or assisted-living facility," she said in an interview.

The sleep problems experienced by people with dementia include getting up during the night and wandering, pacing or engaging in inappropriate activities; waking the caregiver; sleeping excessively during the day; awakening too early in the morning; and having trouble getting to sleep, said Dr. McCurry.

In a study of more than 200 caregivers, Dr. McCurry found that the most common problem among those with AD was excessive sleeping (40%), whereas two-thirds of caregivers were most disturbed by being awakened at night (J. Geriatr. Psychiatry Neurol. 1999;12:53-9).

The first step in tackling reduced sleep quality is to rule out the possible role of medications, disease, pain, or depression in the patient. If those factors are ruled out, then an "ABC" individualized plan of behavior change might help address the sleep-related problems:

- ▶ **A: Identify antecedents.** Did anyone or anything trigger the event?
- ▶ **B: Define and observe the problem behavior.** Who does it happen around, what is the current behavior, where does it happen most, and how often does it occur?
- ▶ **C: Identify the consequence.** What happened after the behavior, and how did others react?

It's important to identify who will carry out the plan, evaluate the progress, revise the plan or switch plans if necessary, said Dr. McCurry, emphasizing that the caretaker is ultimately the expert. "I'm not … the person who is having difficulty sleeping and the family members [must] help us figure out the best approach."

As an example, Dr. McCurry described the case of Mrs. A, an 81-year-old living with her adult daughter. She got out of bed and got dressed every morning between 3 a.m. and 4 a.m. and frequently wandered to the bathroom where she would take off her undergarments and leave them in the toilet or in the fish aquarium in the hallway. On a recent evening, Mrs. A walked out of the house clad only in a thin nightgown. Her daughter had become exhausted and worried that she would have to give up caring for her mother at home.

Dr. McCurry helped the daughter apply the ABC approach. Mrs. A's physician ruled out medications or illness as possible causes; an alarm system was installed on outside doors; in the event that Mrs. A was hungry at night, a prebedtime snack was considered; and she was switched to an adult incontinence garment so that she wouldn't feel the need to get up.

The daughter suggested eliminating her mother's afternoon and evening naps, moving the fish tank, setting consistent bed and rising times, and increasing daytime physical and social activity. Mrs. A was enrolled in an adult day program offering regular structured activities.

These changes helped to keep her active and awake during the day. A baby monitor was put in Mrs. A's room so her daughter would be alerted to redirect her quickly back to bed. Finally, the daughter said she would stop scolding Mrs. A and using an angry tone, which only made Mrs. A more agitated.

"Within 2 months [of these changes], Mrs. A's sleep time went from about 6.5 to 7.3 hours a night," Dr. McCurry said.

Dr. McCurry said doctors who don't have time to educate and guide caregivers about sleep-related problems, might consider having a trained person in their offices, such as a nurse, who could spend extra time talking to family members about these issues. ■

After Concussion, Motor Skills, Neuropsychological Function Are Independent

Cognitive testing alone may be inadequate to assess the neuropsychological functioning of patients with recently sustained concussions, based on neurological testing results that showed only a weak association with motor skills performance.

Tonya M. Parker, Ph.D., and colleagues in the department of human physiology at the University of Oregon, Eugene, studied two groups, each with 29 persons. One group included men and women (mean age, 22 years) who had each sustained a concussion in the last 48 hours. The control group consisted of persons (mean age, 21 years) who had not sustained a head injury. Each group was tested for gait stability and neuropsychological performance.

The researchers found that the scores on the neuropsychological tests were not correlated with gait stability, with or without distraction via a verbal or arithmetic task. For example, visual motor-processing speed in the uninjured group improved through day 28 of the study, whereas in the injured participants, this ability improved through day 5 but not thereafter. At the same time, the concussion participants had significantly greater medial-lateral sway velocity at day 5 and at day 28 when asked to walk while distracted (Br. J. Sports Med. 2007;41:868-73).

The neuropsychological tests consisted of the Immediate Postconcussion Assessment and Cognitive Testing (ImPACT) battery, which assesses attention, memory, concussion symptoms, and reaction time and processing speed. Tests of gait stability were done using eight cameras to record the movement of reflective markers placed on the participant as he or she walked on a stationary surface. The relationship between the center of mass and the center of pressure (that is, the length of stride) was then assessed, along with center-of-mass displacement and peak velocity in the medial-lateral direction and average gait velocity.

Neuropsychological parameters, such as memory, processing speed, and reaction time, "generally resolve within several days after injury," the investigators concluded. By contrast, "dynamic motor tasks, such as walking under varying conditions of attention, are complex and demanding undertakings, which require a longer recovery time following a concussion than [do] cognitive measures. Likewise, tests of complex motor performance may better approximate the demands placed on a subject during sports participation and activities of daily living than [do] cognitive assessments alone."

—John R. Bell