Dopamine Agonists Aid Sleep in Restless Legs

BY HEIDI SPLETE Senior Writer

MINNEAPOLIS — Two dopamine agonists—pramipexole and ropinirole—each improved symptoms and quality of life in adults with restless legs syndrome, based on data from studies presented at the annual meeting of the Associated Professional Sleep Societies. Both drugs are approved by the Food and Drug Administration for the treatment of restless legs syndrome.

Patients with restless legs syndrome (RLS) often report uncomfortable sensations deep in their legs accompanied by irresistible urges to move their legs. The symptoms worsen at night and tend to disrupt sleep, which has a negative impact on patients’ quality of life.

Data from three randomized, double-blind, placebo-controlled studies of pramipexole showed that those treated with a placebo. Based on visual analog scale scores, daytime symptom severity improved by 49% in the pramipexole group, compared with 32% in the placebo group, and pramipexole patients reported an average of 5% improvement in sleep satisfaction, vs. 3% in the placebo group. The study was conducted by Dr. Robert D. Ballard of the University of Colorado Health Sciences Center in Denver.

Pramipexole did not increase daytime sleepiness, compared with placebo, across these three studies. In fact, the pramipexole patients who reported abnormal daytime sleepiness at baseline reported significant improvement in daytime sleepiness, compared with placebo patients, based on the Epworth Sleepiness Scale. No significant differences appeared in daytime sleepiness among patients in the two groups that reported normal levels of daytime sleepiness at baseline.

In a pair of similar studies of ropinirole, presented by Dr. Markus H. Schmidt of the Ohio Sleep Medicine Institute in Dublin, Ohio, the drug significantly improved the symptoms of restless legs syndrome and improved patients’ quality of life in a randomized trial with an intent-to-treat population of 382 adults with RLS. The daily dose ranged from 0.5 to 6.0 mg, titrated as needed. Dr. Schmidt has received financial support from and has served as a speaker for GlaxoSmithKline, the company that supported the research.

After 12 weeks, the 187 patients who received ropinirole reported significantly greater improvements in symptoms, compared with the 195 placebo patients, in four areas. The Medical Outcomes Study Sleep Scale (reduction in sleep disturbance, reduction in daytime sleepiness, increased sleep adequacy, and increased sleep quantity). Adverse events were mild to moderate, and only 4% of the ropinirole patients and 3% of the placebo patients discontinued the medications because of adverse events. The most often reported adverse events in the ropinirole group vs. the placebo group were nausea (28% vs. 7%), headache (20% vs. 18%), and sleepiness (9% vs. 6%).

Vigilance Impaired in Drivers With Obstructive Sleep Apnea

BY AMY ROTHMAN SCHONFELD Contributing Writer

BOSTON — People with obstructive sleep apnea syndrome showed poorer vigilance while driving than did normal controls, a result that could not be predicted by pretest measures of disease severity or subjective reports of sleepiness, according to a poster presented by Dr. Jon Tippin at the annual meeting of the American Academy of Neurology.

“Obstructive sleep apnea syndrome can now be added to the list of diseases, including dementia, illnesses like Alzheimer’s disease and Parkinson’s disease, that cause vigilance problems during driving,” said Dr. Tippin, a neurologist at the University of Iowa, Iowa City.

Vigilance was assessed using the Simulator for Interdisciplinary Research in Ergonomics and Neuroscience (SIREN), an interactive driving simulator adapted from a car fitted with projection screens in front of and behind the driver. Drivers were asked to respond by clicking the high-beam control as soon as they detected light targets flashed at unpredictable temporal intervals (average one per minute) at seven locations across the forward horizon. Hit rates (HR) and reaction times (RT) were the outcome measures. The hour-long test was administered in the late afternoon.

The overall hit rate was lower in drivers with obstructive sleep apnea syndrome (OSAS) (n = 25) than in normal controls (n = 41) (P = .018).

The data also suggested that peripheral targets were more likely to be missed by people with OSAS than were those located in the central field of vision (P = .0862).

“These people do not have visual field impairments but rather they show inattention to things in the peripheral field. As [drivers] become more inattentive, they focus more on the things right in front of them,” said Dr. Tippin.

Although slower reaction times predicted poorer driving performance in all drivers (P is less than .03), there was no difference in mean reaction times between the groups.

People with OSAS were not sleepier than controls before the test, as indicated by the predrive Stanford Sleepiness Scale test. OSAS drivers were sleepier than controls at the end of the drive (P = .027), but only in OSAS drivers did the increased sleepiness correlate with poorer vigilance (as measured by lower hit rates, P = .0135).

Objective tests of sleepiness, such as polysomnography and the Multiple Sleep Latency Test done on the evening of and day after the drive, respectively, also did not correlate with vigilance or driving performance.

“For patients with OSAS, the problem is less one of falling asleep than maintaining attention,” said Dr. Tippin.

Factors such as age, obesity, and a sedentary lifestyle raise the risk for OSAS.

For truck drivers, many of whom have several of these risk factors, the likelihood of OSAS may be elevated to four times that of the general population, said Dr. Tippin.

Sleep deprivation and fragmentation may compound the problem in this population.

With 38 patients who received the medications, Dr. Tippin suggested that OSA should be added to the list of conditions that compound driving capability.