Atypical Parkinson's Takes Heaviest Toll on Patients

BY BETSY BATES
Los Angeles Bureau

SAN DIEGO — Atypical Parkinson's disease took the most profound toll on patients' ability to carry out essential daily activities among six chronic neurologic disorders evaluated in a study of disability and quality of life.

Lisa M. Shulman, M.D., codirector of the Parkinson's Disease and Movement Disorders Center at the University of Maryland in Baltimore, reported on the relative impact of six diverse movement and memory disorders on patients' daily lives.

She reported her results in poster form at the annual meeting of the American Neurological Association.

Significant variation was found in the disability and quality of life scores among patients with essential tremor (n = 58), dystonia (n = 50), Parkinson's disease (n = 425), psychogenic movement disorders (n = 34), Alzheimer's disease (n = 17), and atypical Parkinsonism (n = 45).

All of the disorders significantly undermined physical quality of life, as measured by the SF-12v2 Health Survey, but the patients with atypical Parkinson's disease had the lowest scores by far, reported Dr. Shulman and her associates from the university's department of neurology.

Just three of the disorders—Alzheimer's disease, psychogenic movement disorders, and atypical Parkinson's disease—showed reductions in mental health quality of life scores measured by the SF-12v2 survey.

In the study, just three of the disorders—including atypical Parkinson's—showed reductions in mental health quality of life scores.

Disability was assessed using the Older Americans Resources and Services scale, which includes activities of daily living (ADL) and instrumental activities of daily living (IADL) at a person's best and worst level of function.

Activities of daily living include basic functions such as eating, bathing, grooming, and continence, whereas instrumental activities of daily living include more complex tasks such as using the telephone, paying bills, preparing meals, and using transportation.

"Atypical Parkinson's disease has the greatest impact on all individual ADLs," the investigators concluded.

Atypical Parkinson's disease and Alzheimer's disease had the greatest impact on all instrumental activities of daily living.

In general, neurodegenerative disorders (Parkinson's disease and atypical Parkinson's disease, and Alzheimer's disease) resulted in greater disability than disorders, such as essential tremor and dystonia.

The youngest patient group, those with psychogenic movement disorders (including tremor, myoclonus, and related conditions), had a mean age of 48.

Interestingly, this group reported similar or worse disability and physical quality of life scores as patients with Parkinson's disease (mean age 67), dystonia (mean age 62), and essential tremor (mean age 62).

Their scores on mental quality of life were comparable with those of patients with Alzheimer's disease (mean age, 74) or atypical Parkinson's disease (mean age 71). ■

Bright Light Therapy Also Looks Promising For Primary Insomnia

BY BRUCE JANCIN
Denver Bureau

DENVER — Exposure to bright light has already been established as effective therapy for depression. Now it is also showing promise for improving daytime sleepiness and mood in nondepressed older individuals with primary insomnia.

The evidence comes from a study of 51 patients with primary insomnia—that is, no other psychiatric or medical explanations for their sleeplessness. The patients were randomized to 12 weeks of daily bright light or dim light therapy at home.

The daily treatment sessions involved 45 minutes of reading at a distance of 18 inches from a desk lamp equipped with either a 10,000-lux bulb or a less-than-50-lux bulb.

Participants averaged 64 years of age, were not taking hypnotic medications, and received sleep hygiene instruction as part of the study, Leah Friedman, Ph.D., explained at the annual meeting of the Associated Professional Sleep Societies.

Daytime mood and sleepiness improved to a significantly greater extent during the 12 weeks of bright light exposure, compared with dim light exposure.

Paradoxically, these benefits were achieved despite little or no change in objectively measured sleep variables. For example, total sleep time as measured by wrist actigraphy for 7 days at baseline and again at the end of the 12-week study actually decreased in both treatment groups.

"That's not what you'd want to see," observed Dr. Friedman, a senior research scholar at Stanford (Calif.) University.

However, the preliminary analysis of sleep diary data has been more promising. Patients reported that they felt their sleep got better with bright light exposure, even though actigraphy didn't reflect this, she continued.

The worse a patient's daytime sleepiness and dysphoria at baseline, the more likely the patient was to respond favorably to bright light therapy.

The study was supported by the Veterans Affairs Palo Alto Health Care System. ■

Study: Sleep Apnea May Mediate Apo E ε4 Allele–Alzheimer's Link

BY BRUCE JANCIN
Denver Bureau

DENVER — The well-documented association between the apolipoprotein E ε4 allele and development of cognitive decline and Alzheimer's disease may be mediated at least in part by obstructive sleep apnea, Ruth O'Hara, Ph.D., said at the annual meeting of the Associated Professional Sleep Societies.

This is an exciting possibility, because although no therapies are available to delay the onset of dementia, continuous positive airway pressure (CPAP) offers a highly effective treatment for obstructive sleep apnea. It's possible that identifying and treating this disorder in apo E ε4–positive patients could delay or perhaps even prevent the onset of cognitive decline and Alzheimer's dementia, according to Dr. O'Hara of Stanford (Calif.) University.

She presented a cross-sectional study of 36 community-dwelling nondemented older adults—mean age 70 years—half of whom possessed the apo E ε4 allele. All were assessed for cognitive performance status by the Mini-Mental State Examination and Rey Auditory Verbal Learning Test. The presence and severity of obstructive sleep apnea were assessed using home ventilatory polygraphy.

The most striking study finding was that although there was no difference in cognitive function between the apo E ε4–positive and –negative groups overall, apo E ε4–positive individuals with sleep apnea as defined by a higher apnea/hypopnea index had lower memory scores as reflected by worse performance on the delayed recall and short-term recall components of the Rey test. The higher apo E ε4–positive subjects' apnea/hypopnea indexes are, the lower their memory scores. In contrast, the apnea/hypopnea index was unrelated to memory function in individuals who didn't carry the apo E ε4 allele.

Daytime sleepiness was unrelated to cognitive performance in either group.

Dr. O'Hara observed that it's impossible to tell from a cross-sectional study such as this whether sleep apnea is mediating the effect of the apo E ε4 allele as a risk factor for development of cognitive decline and Alzheimer's disease. That's a question that can be addressed only in a longitudinal study.

On the strength of the provocative cross-sectional study findings, the National Institute of Mental Health has granted funding for Dr. O'Hara and coworkers to conduct a 150-subject prospective study. ■

Apo E ε4 Carriers Reduce AD Risk Via Exercise, Low Fat, Less Alcohol

BY JEFF EVANS
Senior Writer

STOCKHOLM — Individuals who carry the apolipoprotein E ε4 allele that increases the risk of developing Alzheimer's disease may lower their risk to that of a noncarrier through regular exercise, moderate fat intake, and low alcohol consumption, reported Tiia Ngandu at the 12th Congress of the International Psychogeriatric Association.

Ms. Ngandu and her associates studied 1,449 Finnish people who participated in the longitudinal, population-based Cardiovascular Risk Factors, Aging, and Dementia study (CAIDE) in 1972, 1977, 1982, or 1987. After an average follow-up of 21 years, the participants were aged 65-79 years when they were re-examined in 1998.

Based on questions answered at midlife, active individuals (exercised at least twice per week) who carried the ε4 allele had a significantly lower likelihood of developing Alzheimer's disease (AD) than sedentary carriers, said Ms. Ngandu, a doctoral student at the Aging Research Center at the Karolinska Institute, Stockholm.

Intake of polyunsaturated fatty acids did not alter the odds of developing AD in carriers, but high intake of saturated fatty acids was associated with significantly greater odds of AD in carriers, compared with a low intake.

Carriers who frequently consumed alcohol had a significantly higher likelihood of developing AD than carriers who drank infrequently or never.

None of the lifestyle factors reduced the risk of AD in noncarriers, she noted. "[Apolipoprotein E ε4 allele] carriers seem more vulnerable to various environmental effects," Ms. Ngandu said.

People with a parent with late-onset Alzheimer's disease may undergo genotyping for apolipoprotein E ε4. A positive finding is not diagnostic of Alzheimer's disease, even in a symptomatic patient.

The test also is done in some patients with both high cholesterol and elevated triglycerides to determine whether the patient's lipid disorder has a genetic component. ■