Use of Memory Games Shows Gains at 6 Months

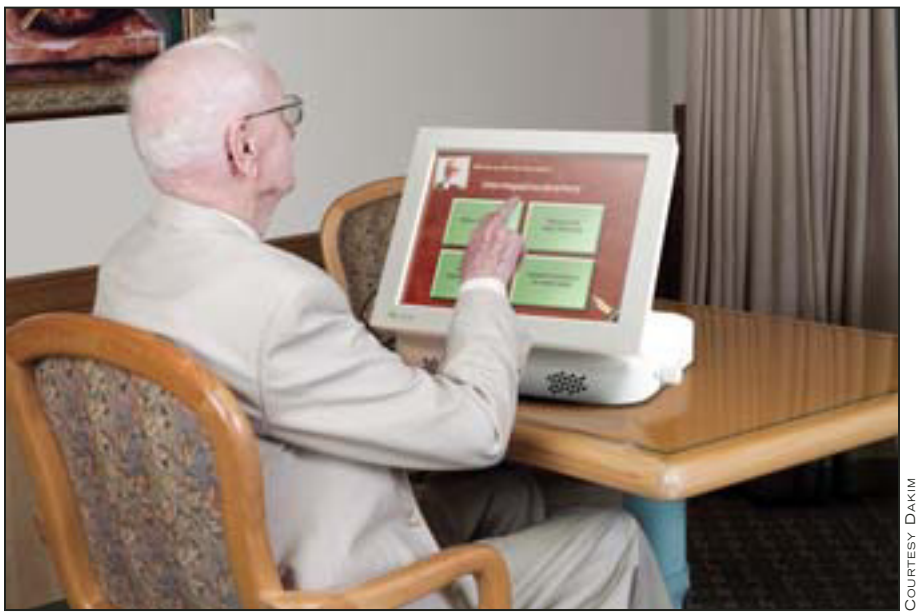
BY ROXANNA GUILFORD-BLAKE

SAVANNAH, GA — Regular use of a brain fitness program appears to produce slight memory improvements in elderly participants at 2 months and significant gains at 6 months, compared with an active control group.

Extended exposure is correlated with enhanced visual and verbal memory in the elderly, Karen Miller, Ph.D., of the University of California, Los Angeles, reported at the annual meeting of the American Association for Geriatric Psychiatry.

The program, Dakim BrainFitness, uses games to exercise long- and short-term memory, critical thinking, visuospatial skills, calculation, and language. Dakim sponsored the research, and Dr. Miller serves as a consultant.

The trial included 38 elderly subjects, 22 in the intervention group (average age, 82.4 years), and 16 in the control group (average age, 83.1 years). The program offers 300-400 activities and five levels of difficulty, allowing participants to engage in different activities each session. Although the program is computer-based, it is designed to be used by those with no computer experience.



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Participants who regularly used a touch-screen program had significant improvements on verbal and visual memory scores compared with a control group.

Patients with Alzheimer's disease were excluded; those with mild cognitive impairment and age-consistent memory impairment were not.

Significant differences were observed at 6 months after randomization between the intervention group, which was enrolled in the program for the duration of the study (an average of 93.3 sessions per participant) and the control group, which, after a 2-month testing phase, also was enrolled (for an average of 45.2 sessions).

Neuropsychological testing was conducted at baseline, at 2 months, and at 6 months. After 2 months, preliminary analysis of intervention group subjects revealed better delayed recall for list learning. The intervention group improved by recalling 8.3 words, compared with their initial recall of 7.6 words during baseline testing.

The control group's recall declined to on average 5.3 words during the posttesting period from the initial recall of 6.8 words.

At 6 months, participants in the intervention vs. control groups were significantly different in their delayed memory domain score. In the intervention group, which had played for the full 6 months, scores rose from 10.4 at baseline to 12.1.

In the control group, which played from month 2 to month 6, the same memory scores fell slightly, from 10.2 at baseline to 10.1 at follow-up.

The key finding, Dr. Miller said, is the importance of exposure. The longer a person uses the program, the more likely he or she is to improve in verbal and visual memory. The results at 2 months were "mild," while those at 6 months were "most overwhelmingly positive."

She added that 2- and 6-month analyses of a larger study of 100 subjects, which will include data on perception of memory functioning and mood, should be available by the summer. If she secures additional funding, she plans to do a follow-up at years 1 and 5.

Numerous brain fitness products are on the market, and that prompted a question from the audience about how to separate the legitimate programs from the "Elmer Gantries." Another session panelist, Dr. Gary Small also of the University of California, Los Angeles, fielded the question and suggested that the program should be viewed with the same kind of skepticism that should be taken toward nutritional supplements. "We need more evidence before we get all excited about it," he said.

Dr. Small is a Dakim shareholder. ■

Extended-Release Memantine Deemed Safe, Well Tolerated

BY ROXANNA GUILFORD-BLAKE

SAVANNAH, GA. — An extended-release formulation of memantine 28 mg applied once daily was safe and well-tolerated in patients with moderate to severe Alzheimer's disease who participated in a 52-week, open-label, fixed-dose study.

Dr. Barnett Meyers of Weill Medical College at Cornell University, White Plains, N.Y., and his colleagues presented the study, which was funded by Forest Laboratories, at the annual meeting of the American Association for Geriatric Psychiatry.

Memantine (Namenda) has been approved for the treatment of moderate to severe Alzheimer's disease (AD). It's currently administered in twice-daily, immediate-release doses of 10 mg each.

A previous 24-week trial indicated that a once-daily 28-mg formulation of memantine (memantine ER) was safe and effective for patients with moderate to severe AD who were taking cholinesterase inhibitors (Alzheimers Dement. 2008;4[Suppl. 1]:T793).

Of 253 outpatients who were screened, 164 were either titrated to the target dose of memantine ER 28 mg daily over 4 weeks (75 of the 128 patients in this group completed the trial) or were switched from twice daily, immediate-release memantine 10 mg (23 of 36 patients completed the trial). All patients were 50 years or older, with similar baseline characteristics and a diagnosis of probable AD.

Of 150 patients who reported treatment-emergent adverse events, 8 (5%) experienced events that were determined to be related to the study medication.

Overall, 44 patients (27%) experienced a serious adverse event, and none of the 12 deaths that occurred during the trial was determined to be related to treatment.

During treatment, 18% of patients gained weight, 13% lost weight, and 10% had high blood urea nitrogen, Dr. Meyers and his colleagues reported in their poster.

The researchers concluded that patients taking the 10-mg twice-daily dose can safely switch to memantine ER without a titration period. ■