Acetaminophen Increases Activity Levels in Patients With Dementia

BY MARY ANN MOON
Contributing Writer

Regular administration of acetaminophen raises levels of general activity, social interaction, engagement with media such as television or magazines, and worklike activity in elderly patients with moderate to severe dementia, reported John T. Chibnall, Ph.D., of St. Louis University School of Medicine, and his associates.

Regular dosing with the analgesic presumably addresses untreated pain in these patients, which often cannot report pain and who have a high prevalence of comorbidities, including arthritis, fractures, and diabetes, which can generate significant pain, the researchers said.

Their study findings imply that untreated pain inhibits dementia patients’ active engagement with the environment and promotes their withdrawal, Dr. Chibnall, a professor of psychiatry at the university, and his associates added (J. Am. Geriatr. Soc. 2005;53:1921-9).

The researchers evaluated behavioral changes in 25 elderly (mean age 85.9 years) nursing home residents with moderate to severe dementia during an 8-week study. The subjects had Alzheimer’s disease, degenerative dementia, or multi-infarct dementia and had resided in nursing homes for a mean of 35 months. All had moderate to severe cognitive decline and impairment in the activities of daily living. The subjects were given either two 500 mg tablets of acetaminophen or two placebo tablets at mealtimes every day for 4 weeks, then switched to the other treatment for 4 weeks, following a 1-week washout period between the two phases.

Their behavior was evaluated under both conditions using the Dementia Care Mapping (DCM) tool, in which trained “mappers” observed patients for 5 hours between 9 a.m. and 2 p.m., when subjects were likely to be most active. At 5-minute intervals, the observers quantified a wide range of behaviors across 24 domains such as direct or passive social interaction, creative activities, exercise, listening to music, and eating.

The subjects also were evaluated using the Cohen-Mansfield Agitation Inventory (CMAI), a 29-item scale in which nursing home personnel assessed how often the patients had displayed a variety of agitated behaviors during the preceding 2 weeks.

With acetaminophen, subjects clearly showed higher levels of general activity, spent more time in direct social interaction and engagement with media, and participated more in worklike activity. They also spent significantly more time in passive social interaction, while on acetaminophen. However, the levels of agitation and the frequency of agitated behaviors were quite low in this study, which may have confounded the results. Similarly, the use of psychotropic drugs was quite low overall, leaving little room for the intervention to show an effect, the researchers noted.

Overall, the results support the contention that pain dampens dementia patients’ activity and restricts their engagement with the environment, while prophylactic treatment of that pain reverses these effects.

Testosterone Replacement May Improve QOL in Alzheimer’s

BY MARY ANN MOON
Contributing Writer

Testosterone replacement improved the quality of life for men with Alzheimer’s disease and low serum testosterone levels in a small preliminary study, reported Po H. Lu, Ph.D., and associates at the University of California, Los Angeles, David Gefen School of Medicine.

Testosterone therapy has been shown to improve mood, muscle mass, strength, bone density, libido, and certain cognitive functions in hypogonadal men who are otherwise healthy, but this is the first study to report that testosterone may exert positive effects in Alzheimer’s disease (AD), the researchers said (Arch. Neurol. 2006;63:1-5).

They assessed testosterone’s effects on a variety of cognitive, behavioral, mood, and quality of life (QOL) measures in 16 men with mild to moderate AD and 22 healthy elderly men who served as control subjects. The study subjects were randomly assigned to either testosterone patches (7 patients and 10 controls) or placebo patches (9 patients and 12 controls) every day for 4 months. The AD group and the testosterone recipients showed a nonsignificant trend toward improved QOL over the 6-month study period, while the placebo group showed significant declines.

Similarly, the AD patients who received testosterone showed either greater improvement or less decline in three measures of visual-spatial cognitive functioning, compared with the AD placebo group and the control groups. Both the improved QOL and the improved cognitive functioning were correlated with increased serum testosterone levels.

Two AD patients and four control subjects withdrew from the study because of adverse effects, including skin rash at the testosterone patch application site. None of the AD patients who received testosterone showed more aggression or agitation than placebo subjects, and caregivers did not observe any marked changes in patients’ sexual behavior.

Regarding diagnostic expectations, caregivers were more accurate than patients when estimating the likelihood of a dementia diagnosis. More than half (52%) of patients correctly guessed that they did not have dementia, compared with 32% of patients. Among those who said they did not expect a diagnosis of dementia, caregivers were correct 30% of the time, compared with 34% of patients.

Regardless of their diagnostic expectations, patients experienced no change in depression and a decrease in anxiety after receiving their diagnosis, regardless of what the diagnosis was.

The picture was less straightforward for caregivers. Regardless of their expectations, depression levels decreased with a diagnosis of dementia and remained unchanged when it was not diagnosed. Anxiety levels were influenced by their expectations and not by the actual diagnosis. The researchers said that the intervention to show an effect, the researchers noted.

"Our hypothesis is that we will see that patients’ depression and anxiety either remains stable or gets better, and the caregivers are actually the ones we are expecting will experience more stress" as patients deteriorate, he said. "This study is important for clinicians about whom their patient is.” Dr. Carpenter said. “The patient is the person they are diagnosing, but it is the caregivers who have to provide care. And if we can find a way to help while watching this person [who] they care about slowly decline. And so the burden of responsibility for clinicians, we think, is to more broadly about who the patient is.”