Brief Exams Distinguish Delirium From Dementia

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

SAN FRANCISCO — Two brief mental state exams can reliably differentiate delirium from dementia in the elderly patient.

Because delirium usually is caused by an organic illness, confusional symptoms may disappear once the underlying problem is treated, said Dr. Allen Yuen, director of emergency medicine at Epworth Hospital, Melbourne. Dementia, the product of a progressive disease, is largely untreatable.

"Poor differentiation between the confusional states is associated with poor outcomes in the patients, with increased morbidity and mortality, longer hospital stays, and functional decline," he said at the 12th International Conference on Emergency Medicine.

There are three types of confusion in the elderly patient, Dr. Yuen said at the meeting, which was hosted by the American College of Emergency Physicians. Delirium is characterized by the sudden onset of symptoms. Patients may appear either drowsy or agitated. They can exhibit variable short-term memory, poor attention, disorganized thoughts, and even hallucinations.

The underlying causes can range from serious cardiovascular disorders, such as cerebral ischemia, pulmonary embolism, and myocardial infarction, to such seemingly innocuous problems as a urinary tract infection, pain, cold, urinary retention, and constipation.

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Dementia is a state of chronic confusion induced by a long-term neurologic illness such as Alzheimer's disease. This is progressive and irreversible. Short-term memory is impaired, and the patient may not be able to perform simple tasks when asked. Language may be impaired. Family members may report aggression or personality changes.

Acute or chronic confusion occurs when a treatable illness, such as infection, brings on acute delirium in a patient with dementia.

A combination of the Confusion Assessment Method (CAM) and the Mini-Mental State Exam (MMSE) is highly effective in differentiating the types of confusion, Dr. Yuen said. "A positive CAM and an MMSE score of more than 25 are strongly predictive of delirium," he said.

CAM has a sensitivity of 95%-100% and a specificity of up to 95% for diagnosing delirium in the elderly. It relies on observations both by family members or caretakers and providers to assess four symptoms: acute confusional onset, inattention, disorganized thinking, and altered level of consciousness. The diagnosis of delirium by CAM requires the presence of both the first and second feature and at least one of the other two.

The MMSE, while not considered a diagnostic tool, does identify patients with cognitive impairment suggestive of dementia. The screen measures orientation, short-term memory, calculation ability, and language. A score of 18-26 indicates mild dementia, although, highly educated patients with early dementia may still achieve a score of up to 30, Dr. Yuen noted.

The usual battery of tests—complete blood count, electrolytes, blood urea nitrogen and glucose, liver function, C-reactive protein, and urinalysis—often will reveal the physical problem that is underlying delirium. A chest x-ray, electrocardiogram, and brain CT may be helpful as well.

Drugs and restraints should be avoided or kept to the absolute minimum needed to ensure the patient's safety, Dr. Yuen said. Use restraints only for extreme agitation, aggressiveness, or risk of self-harm, not to prevent injury or falls, he advised, adding that "they're not effective for this and may even contribute to falls if used inappropriately."

Drugs should be considered only for hallucinations or delusions that may increase the risk of harm to self or others, Dr. Yuen said. "Don't use them routinely, and use them only until the cause of the delirium is reversed." ■

Frailty Assessment Needs to Be Simpler

BY DOUG BRUNK
San Diego Bureau

SALT LAKE CITY — Diagnosing frailty in a nursing home resident is often easier said than done.

At the annual symposium of the American Medical Directors Association, Dr. John E. Morley called a generally accepted definition of frailty useful but not practical for most nursing homes because they don't have the time or the staff to test for the criteria that constitute that definition. "Unless someone's reimbursing you, you probably don't have the time to do this in your practice," said Dr. Morley, professor of gerontology at St. Louis University.

He was referring to the criteria set forth by Dr. Linda P. Fried of the Johns Hopkins Medical Institutions and her associates in 2001. They characterized frailty in older adults as a clinical syndrome occurring when three or more of the following criteria are present: unintentional loss of at least 10 pounds in the past year, self-report of exhaustion, extremely weak grip strength, slow walking speed over 15 feet, and low physical activity as measured by calories expended per week (J. Gerontol. A Biol. Sci. Med. Sci. 2001;56:M146-57).

Instead, Dr. Morley suggested a frailty screening tool developed by the International Academy of Nutrition and Aging, based on simpler answers to questions suggested by the mnemonic FRAIL. F stands for fatigue (Is the person fatigued?); R for resistance (Can the person walk up at least one flight of stairs?); A for aerobic (Can the person walk at least one block?); I for illness (Does the person have more than five illnesses?); and L for loss of weight (Has the person lost more than 5% of his or her weight in the past year?) (J. Am. Med. Dir. Assoc. 2008;9:71-2).

"If you want to measure for frailty quickly in the nursing home setting, this is a nice way to do it," said Dr. Morley, who is editor in chief of the Journal of the American Medical Directors Association. He noted that validation studies of the screening tool are currently underway. He said it's already clear that the tool "is far more useful than an echocardiogram" in revealing frailty.

Measuring frailty in elderly patients is important because of its direct link to poor nutrition.

DR. MORLEY

Measuring frailty is important because of its direct link to poor nutrition, said Dr. Morley. Recent studies have demonstrated that frail older people consume fewer than 21 kcal/day and have lower than normal intake of protein, vitamin D, vitamin E, vitamin C, and folate.

"We should be pushing for a balanced diet," rather than just administering multivitamins, he said. "Much of the literature that's coming out suggests that balanced diet is what matters."

Eating right is hard to do for anyone, let alone a frail elderly person, he added. "If you look at what the average American eats, we often don't come close to five servings of fruits and vegetables a day."

Weight loss in nursing home residents is a matter of major concern. A study of underweight nursing home residents found that 30% of residents who continued to lose weight died over the next 6 months, while the 6-month mortality rate was 20% among those whose weight stabilized, and 10% among people whose weight loss was reversed (J. Nutr. Health Aging 2002;6:275-81).

The causes of weight loss include anorexia, cachexia, rheumatoid cachexia, sarcopenia, malabsorption, hypermetabolism, and dehydration. "It is now well recognized that not only is weight loss bad for nursing home residents, but anorexia independently predicts mortality at a slightly higher hazard ratio than weight loss," Dr. Morley said.

He recommends the Simplified Nutritional Appetite Questionnaire as a "simple, easy" way to screen for anorexia. Developed by the Council for Nutritional Strategies in Long-Term Care, this tool is a four-item, single-domain questionnaire. Responses are scored by using a 5-point, verbally labeled Likert-type scale, low scores indicating deterioration in appetite (Am. J. Clin. Nutr. 2005;82:1074-81).

The questionnaire "has very good sensitivity and specificity for weight loss, and it can predict weight loss 6 months down the line," commented Dr. Morley. ■

New-Onset PD Risk Raised In Older Men With Type 2

WASHINGTON — A history of type 2 diabetes was associated with a 34% higher risk of new-onset Parkinson's disease in older men, but diabetes did not seem to cause Parkinson's.

Data from epidemiology studies have suggested a link between diabetes and Parkinson's disease (PD), but there have been few prospective studies of the association.

To evaluate the relationship between new-onset PD and diabetes, Ashley E. Smith, a medical student at Northeastern Ohio Universities, Rootstown, and colleagues reviewed data from 21,841 men aged 40-84 years who were enrolled in the Physicians' Health Study. Those with a history of PD at baseline, with type 1 diabetes or unknown diabetes status, and who developed dementia before PD were excluded. They reported the findings in a poster presentation at the annual meeting of the American Geriatrics Society.

They identified 423 diabetes cases at baseline, 1,987 incident cases of diabetes, and 556 cases of PD over a median follow-up of 23.1 years. Mean baseline age was 55 years for men with diabetes and 52 years for men without diabetes. Mean age for PD diagnosis was 73 years.

Diabetes was associated with an increased risk of PD, but the risk did not increase with the duration or severity of diabetes. Instead, after adjustment for multiple factors including age, smoking, alcohol use, body mass index, hypertension, physical activity, and high cholesterol, the risk of PD was greatest in those with a normal baseline body mass index, older age at onset of diabetes, and a shorter duration of diabetes.

In the proportional hazard model, a diagnosis of diabetes was clustered around the diagnosis of PD, which supports a biological link between the two conditions. "Dopaminergic neurons are involved in glucose regulation and extensive damage to these neurons might lead to impaired peripheral glucose metabolism," the investigators wrote.

More studies are needed to determine whether the increased risk of PD in adults with diabetes is because of detection bias or an underlying biological mechanism.

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—Heidi Splete