

# What could be behind your elderly patient's subjective memory complaints?

## Evidence-based answer

Depression, anxiety, and dementia, as well as older age, female gender, lower education level, and decreased physical activity, have all been associated with memory loss reported by patients or family members (strength of recommendation [SOR]: **B**, cross-sectional studies). Memory complaints in patients with no cognitive

impairment on short cognitive screening tests, such as the mini-mental status exam, may predict dementia (SOR: **B**, longitudinal studies). No consistent evidence supports pharmacologic treatment of reported memory loss that is not corroborated by objective findings (SOR: **B**, nonrandomized, poor-quality studies).

## Clinical commentary

### Is depression or polypharmacy at work?

As the population ages, primary care physicians encounter a significant number of patients with memory loss and dementia. In clinical practice, patients with subjective memory complaints but normal cognitive testing present a diagnostic dilemma. Close attention to comorbid psychiatric conditions such as depression, anxiety, and substance use disorders, as well as polypharmacy, is essential.

While the US Preventive Services Task Force indicates that there is insufficient evidence to screen, it notes

that recognizing cognitive impairment early not only facilitates diagnostic and treatment decisions, but also allows clinicians to anticipate problems the patient may have in understanding and adhering to recommended therapy. Even though evidence of early or minimal dementia may be difficult to detect, identifying it promptly enables physicians to counsel patients and caregivers on the course of disease progression, warning signs, medication adherence, finances, and safety.

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## FAST TRACK

**Memory loss is associated with decreased physical activity, depression, anxiety, and dementia**

## Evidence Summary

Several cross-sectional studies indicate that patients with subjective memory loss are more likely to be older, female, less physically active, in poorer health, less educated, and more depressed or anxious than unaffected patients.<sup>1-4</sup> These studies concentrate mostly on elderly people liv-

ing in the community.

A study of 1883 patients with normal baseline short-cognitive test results found that those with subjective memory complaints had a higher incidence of dementia.<sup>5</sup> At 5-year follow-up, 15% of patients with baseline subjective memory complaints had developed dementia compared

TABLE

### Features of age-associated memory impairment vs mild cognitive impairment

FEATURE	AGE-ASSOCIATED MEMORY IMPAIRMENT	MILD COGNITIVE IMPAIRMENT
<b>Clinical presentation</b>	<ul style="list-style-type: none"> <li>• ≥50 years of age with reported memory complaint (40% of people in their 50s and 85% of people ≥80 years of age)</li> <li>• Normal mental status</li> <li>• Intact ADLs and IADLs</li> </ul>	<ul style="list-style-type: none"> <li>• Reported memory complaint or memory problems noted by an informant</li> <li>• Learning and recall most often affected</li> <li>• Normal mental status</li> <li>• Intact ADLs and subtle changes in IADLs (such as managing finances)</li> </ul>
<b>Memory test results</b>	<ul style="list-style-type: none"> <li>• Within 1 SD of the average level for young adults on a standardized memory test</li> </ul>	<ul style="list-style-type: none"> <li>• More than 1.5 SD below the average level for age peers on a standardized memory test</li> </ul>
<b>Clinical course</b>	<ul style="list-style-type: none"> <li>• Generally stable for periods of at least 4 years</li> </ul>	<ul style="list-style-type: none"> <li>• Progresses to dementia at the rate of 10% to 12% per year; some patients remain free of dementia for at least 10 years</li> </ul>

ADLs, activities of daily living; IADLs, instrumental activities of daily living; SD, standard deviation.

Source: Spar JE, La Rue A. *Clinical Manual of Geriatric Psychiatry*.<sup>18</sup>

#### FAST TRACK

### No consistent evidence supports drug treatment of reported memory loss that is not corroborated by objective findings

to only 6% of those without such complaints (odds ratio=2.7; 95% confidence interval [CI], 1.45-4.98).

A prospective cohort study that followed 158 patients with no evidence of dementia showed a significant correlation between informant-reported memory problems and development of dementia at 5 years.<sup>6</sup> Forty-five percent of patients with informant-reported memory problems developed dementia after 5 years compared with 25% of patients who had only self-reported memory problems ( $P = .02$ ). This result suggests that subjective memory problems reported by observers (family or caregivers) may be more predictive of dementia than self-reported memory complaints.

#### Donepezil, ginkgo biloba may not help these patients

Most trials of interventions to preserve memory have not enrolled patients with subjective memory complaints. How-

ever, data from trials that enrolled either asymptomatic elderly patients or patients with mild cognitive impairment don't support the use of donepezil, ginkgo biloba, NSAIDs, COX-2 inhibitors, vitamin E, vitamin B<sub>6</sub>, vitamin B<sub>12</sub>, statins, hormone replacement therapy, or omega-3 fatty acids to delay progression to dementia.<sup>7-16</sup>

#### Could mental exercise help?

One systematic review of 22 longitudinal cohort studies, which included more than 29,000 patients, evaluated complex patterns of mental activity in early, mid-, and late-life in relation to the incidence of dementia. Dementia was diagnosed at a significantly lower rate in patients with a higher level of cognitive exercise, such as memory-based leisure activities and social interactions, than those with less rigorous daily cognitive challenges (relative risk=0.54; 95% CI, 0.49-0.59).<sup>17</sup>

This raises the possibility that mental exercise has neuroprotective effects. No randomized trials exist to support this hypothesis, however.

#### Recommendations

There is no consensus regarding the nomenclature applied to reported memory loss and mild cognitive impairment. The *Clinical Manual of Geriatric Psychiatry* provides definitions that can be used in the clinical setting (TABLE).<sup>18</sup>

The US Preventive Services Task Force concludes that evidence is insufficient to recommend for or against routine screening for dementia in older adults (I recommendation).<sup>19</sup> However, the Task Force notes that clinicians should assess cognitive function whenever they suspect impairment or deterioration based on direct observation, patient report, or concerns raised by family members, friends, or caretakers.

The American Geriatrics Society<sup>20</sup> and American Academy of Neurology (AAN)<sup>21</sup> acknowledge the subtle difference between age-associated memory impairment and mild cognitive impairment, and the difficulty of differentiating normal changes of

aging from abnormal changes. The AAN's guidelines for early detection of dementia emphasize the importance of diagnosing mild cognitive impairment or dementia early. However, the guidelines specifically exclude patients with subjective memory loss unaccompanied by objective cognitive deficits and offer no further discussion about these patients. ■

#### References

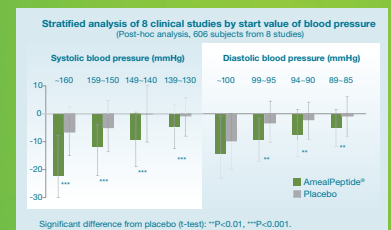
1. St John P, Montgomery P. Is subjective memory loss correlated with MMSE scores or dementia? *J Geriatr Psychiatry Neurol.* 2003;16:80-83.
2. Lautenschlager NT, Flicker L, Vasikaran S, et al. Subjective memory complaints with and without objective memory impairment: relationship with risk factors for dementia. *Am J Geriatr Psychiatry.* 2005;13:731-734.
3. Jonker C, Geerlings MI, Schmand B. Are memory complaints predictive for dementia? A review of clinical and population-based studies. *Int J Geriatr Psychiatry.* 2000;15:983-991.
4. Mol ME, van Boxtel MP, Willems D, et al. Do subjective memory complaints predict cognitive dysfunction over time? A six-year follow-up of the Maastricht aging study. *Int J Geriatr Psychiatry.* 2006;21:432-441.
5. Wang L, van Belle G, Crane PK, et al. Subjective memory deterioration and future dementia in people aged 65 and older. *J Am Geriatr Soc.* 2004;52:2045-2051.
6. Carr DB, Gray S, Baty J, Morris JC. The value of informant versus individual's complaints of memory impairment in early dementia. *Neurology.* 2000;55:1724-1726.
7. Birks J, Flicker L. Donepezil for mild cognitive impairment. *Cochrane Database Syst Rev.* 2006;(3):CD006104.
8. Birks J, Grimley EV, Van Dongen M. Ginkgo biloba for cognitive impairment and demetia. *Cochrane Database Syst Rev.* 2007;(2):CD003120.
9. Etminan M, Gill S, Samii A. Effect of nonsteroidal anti-inflammatory drugs on risk of Alzheimer's disease: systematic review and meta-analysis of observational studies. *Br Med J.* 2003;327:128-131.
10. Aisen P, Schafer K, Grundman M. Effects of rofecoxib or naproxen vs placebo on Alzheimer disease progression: a randomized controlled trial. *JAMA.* 2003;289:2819-2826.
11. Isaac M, Quinn R, Tabet N. Vitamin E for Alzheimer's disease and mild cognitive impairment. *Cochrane Database Syst Rev.* 2000;(4):CD002854.
12. Malouf R, Grimley Evans J. Vitamin B6 for cognition. *Cochrane Database Syst Rev.* 2003;(4):CD004393.
13. Malouf M, Grimley Evans J, Areosa SA. Folic acid with or without vitamin B12 for cognition and dementia. *Cochrane Database Syst Rev.* 2003;(4):004514.
14. Scott HD, Laake K. Statins for the prevention of Alzheimer's disease. *Cochrane Database Syst Rev.* 2001;(3):003160.
15. US Preventive Services Task Force. Postmenopausal hormone replacement therapy for the primary prevention of chronic conditions: recommendations and rationale. *Am Fam Physician.* 2003;67:358-364.
16. Lim WS, Gammack JK, Van Niekerk JK, et al. Omega 3 fatty acid for the prevention of dementia. *Cochrane Database Syst Rev.* 2006;(1):CD005379.
17. Valenzuela MJ, Sachdev P. Brain reserve and dementia: a systematic review. *Psychol Med.* 2006;36:441-454.
18. Spar JE, La Rue A. *Clinical Manual of Geriatric Psychiatry.* Illustrated ed. Arlington, Va: American Psychiatric Publishing, Inc; 2006.
19. US Preventive Services Task Force. Screening for dementia: recommendation and rationale summary for patients. *Ann Intern Med.* 2003;138:925-926.
20. Durso SC, Gwyther L, Roos B, et al. *Clinical Practice Guidelines.* Abstracted from the American Academy of Neurology's dementia guidelines for early detection, diagnosis and management of dementia. New York: American Geriatrics Society; 2006. Available at: [www.americangeriatrics.org/products/positionpapers/aan\\_dementia.shtml](http://www.americangeriatrics.org/products/positionpapers/aan_dementia.shtml). Accessed April 9, 2007.
21. Petersen RC, Stevens JC, Ganguli M, et al. Practice parameter: early detection of dementia: mild cognitive impairment (an evidence-based review). Report of the quality standards subcommittee of the American Academy of Neurology. *Neurology.* 2001;56:1133-1142.



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