What Can Be Done to Slow Progression of Dementia in the Elderly?

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Does stress management improve outcomes of patients with heart disease?

Evidence-Based Answer
In patients with cardiac disease, stress management techniques reduce cardiac mortality, risk of nonfatal myocardial infarction (MI), and depression. Stress management interventions have not been shown to improve all-cause mortality. (SOR A, based on a meta-analysis.)

In 2004, a meta-analysis of 36 randomized controlled trials (RCTs) examined numerous nonpharmacologic psychological interventions with a minimum follow-up time of 6 months for adults with coronary heart disease (CHD; total n=12,841). Overall, there was a 22% reduction in nonfatal MIs (odds ratio [OR] 0.78; 95% confidence interval [CI], 0.67–0.90), but cardiac and all-cause mortality were not reduced (OR 0.86; 95% CI, 0.72–1.03; and OR 0.93; 95% CI, 0.81–1.06, respectively). Significant reduction in depression (using a number of different measures) was also reported (standard mean difference, –0.3; 95% CI, –0.48 to –0.13).

Of the 36 trials in this meta-analysis, 18 tested stress management techniques (utilizing relaxation training, cognitive challenge, and/or specific coping strategies). Among these 18 trials (n=3,425), there was a 31% reduction in nonfatal MIs (OR 0.69; 95% CI, 0.52–0.92). Total mortality was unaffected (OR 0.88; 95% CI, 0.61–1.15), while cardiac mortality was mildly reduced (OR 0.62; 95% CI, 0.38–0.99).

A 2005 RCT (n=154) examined whether an integrative medicine intervention (combination of mindfulness meditation, relaxation training, and stress management, as well as education on nutrition, physical activity, and lifestyle) reduced the 10-year risk of CHD among participants older than 45 years with 1 or more CHD risk factors. There was a 16% relative decline in the intervention group for 10-year CHD risk as determined by Framingham risk scores versus 12% relative decline in the usual-care group (P=.04). (Risk factors included in the Framingham calculation are age, total cholesterol, high-density lipoprotein cholesterol, systolic blood pressure, treatment for hypertension, and cigarette smoking.)

In 2001, a small pilot RCT (N=14, 12 male, 2 female), not included in the Cochrane review because of a less than 6-month follow-up, evaluated progressive muscle relaxation (PMR) for stress reduction in patients undergoing phase 2 or 3 cardiac rehabilitation. The active group received four 50-minute weekly PMR sessions along with general cardiac rehabilitative care, whereas the control group received only usual cardiac rehabilitation. Analyses of resting heart rate (HR) changes showed a trend toward lower HR after 4 weeks in the PMR group (71 vs 65 bpm, P=.052). Analysis of State-Trait Anxiety Inventory scores (scores vary from 20 to 80, with higher scores indicating higher anxiety levels) showed a significant reduction in state anxiety (mean scores 38 vs. 27; P<.05) after 4 weeks in the PMR group versus a nonsignificant change in the control group.

What can be done to slow progression of dementia in the elderly?

Evidence-Based Answer
Cholinesterase inhibitors alone or in combination with memantine delay the rate of nursing home admissions among elderly patients with Alzheimer’s disease (AD), but have no statistical influence on mortality. (SOR B, based on an observational study.) Cholinesterase inhibitors are associated with small improvements in cognition and function in patients with AD when compared with placebo (SOR A, based on a meta-analysis.) The total societal medical cost of donepezil therapy is comparable to the cost of placebo. (SOR B, based on 1 randomized controlled trial [RCT].)

An observational study published in 2009 followed 943 patients with dementia for 0.8 to 18 years to determine the effect of various dementia therapies on nursing home admissions and mortality. Among this group, 416 patients received no dementia treatment, 387 received cholinesterase inhibitors alone (donepezil, tacrine, rivastigmine, or galantamine), and 140 patients received a combined cholinesterase inhibitor and memantine therapy. The mean treatment time for cholinesterase inhibitors was 38.4 months, and for memantine was 19.2 months.

Evidence-Based Practice / Vol. 12, No. 11 9
About 49% (203/416) of the patients with no dementia therapy were admitted to nursing home facilities, compared with only 21% (83/387) of patients on cholinesterase inhibitor treatments and 5% (7/140) of patients on combined memantine and cholinesterase inhibitor treatments. Compared with no therapy, the relative hazard ratio (RH) for admission among patients taking cholinesterase inhibitors alone was 0.37 (95% confidence interval [CI], 0.27–0.49); the RH was 0.29 (95% CI, 0.11–0.72) for patients taking memantine and cholinesterase inhibitors. The RH for all-cause mortality was 1.1 (95% CI, 0.88–1.38) for the cholinesterase inhibitors and 0.92 (95% CI, 0.56–1.49) for combined therapy, when compared with untreated patients.¹

A 2008 meta-analysis of 33 articles on donepezil, galantamine, and rivastigmine included 14 placebo-controlled studies that evaluated the effect of the drugs on the baseline score of the Alzheimer’s Disease Assessment Scale Cognitive section (ADAS-cog). The ADAS-cog is an 11-question, 70-point scale, with higher scores indicating worsening disease. The pooled weighted mean difference in ADAS-cog score for treatment compared with placebo was −2.67 (95% CI, −3.28 to −2.06) for donepezil, −2.76 (95% CI, −3.17 to −2.34) for galantamine, and −3.01 (95% CI, −3.80 to −2.21) for rivastigmine. Pooled data from 14 studies measuring function (active treatment vs placebo) showed standardized mean differences of 0.31 (95% CI, 0.21 to 0.40) for donepezil, 0.26 (95% CI, 0.11 to 0.40) for rivastigmine, and 0.27 (95% CI, 0.18 to 0.36) galantamine, all favoring active treatment.²

A 2006 Cochrane review of 15 RCTs of donepezil versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing zileuton versus placebo concluded that donepezil is neither more nor less expensive than placebo when assessing.


Is fenugreek safe and effective as a lactation enhancer?

Evidenced-Based Answer
Fenugreek should not be recommended. While the fenugreek plant may have some efficacy in lactation enhancement (SOR C, based on 1 small cohort study), it may have adverse effects in both the mother and infant (SOR C, based on expert opinion and case reports).

Galactagogues are commonly used for adoptive nursing, reestablishing the milk supply after weaning, and increasing a faltering milk supply. Of the herbal lactation enhancers available, fenugreek is perhaps the most widely used, with the typical dose ranging from 600 to 2400 mg (1–4 capsules) 3 to 4 times a day.¹

To date, only 1 clinical trial has evaluated the effectiveness of fenugreek for enhancing breast milk production. The trial was a small observational study in which participants served as their own control. Ten women completed the study. All participants were exclusively breast-pumping. During week 1, baseline milk production was documented by the patients and recorded in a diary. During week 2, participants took 3 capsules of fenugreek, 3 times daily, while continuing to log their milk production. The authors reported an increase in average daily pump volume from 207 mL per day during week 1, to 464 mL per day during week 2 (P=.004).²

Limitations to this study included small sample size, lack of randomization, and data based on patient report. Additionally, study data were available in abstract form only, so important details such as infant gestational age at birth and reasons why the women were exclusively breast-pumping are unknown.²

No clinical studies have evaluated the safety of fenugreek in mother or infant when used for lacta-