Letters

Rethinking vitamin E

Vitamin E has been speculated to prevent or treat numerous illnesses. Despite limited efficacy data, many psychiatrists prescribe supplemental vitamin E to prevent or treat dementia and tardive dyskinesia (TD). Findings from several recent meta-analyses, however, question vitamin E's benefit in certain uses and suggest that it carries some risks.[1,2]

Mortality risk. In a meta-analysis of 19 clinical trials,[2] Miller et al found that vitamin E, 400 IU/d, increased all-cause mortality risk (risk ratio = 1.04; P = .035) compared with dosages < 400 IU/d. While it is unclear why, the investigators noted that vitamin E:

- may have pro-oxidant effects at high dosages, which could increase the risk of atherosclerosis
- may lead to withdrawal if used irregularly at high doses
- is an anticoagulant that may increase the risk of hemorrhagic stroke. Vitamin E also can worsen coagulation defects at high dosages and is contraindicated in patients taking coumadin.[3]

Treating moderate Alzheimer's disease (AD). Sano et al found little difference in effectiveness between selegiline, 10 mg/d; vitamin E, 2,000 IU/d; concomitant selegiline and vitamin E; or placebo.[4] After considering the placebo group's higher baseline Mini-Mental State Examination scores, the researchers found that primary outcomes (death, institutionalization, lost activities of daily living, progression to severe dementia) were delayed among the treatment groups. Changes in cognitive scores from baseline differed little between the treatment and placebo groups.

Dietary vitamin E consists of various tocopherol forms as well as the alpha-tocopherol usually contained in vitamin E supplements. Increased dietary vitamin E intake may lower the risk of AD[7] but probably has different risks and benefits than vitamin E supplementation. For example, Morris et al[7] found that increased dietary intake of alpha- and gamma-tocopherols was associated with a reduced AD incidence, whereas beta-tocopherol did not prevent development of AD.

Treating TD. A few small studies have associated vitamin E supplementation with reduced TD symptoms. Soares and McGrath, however, found limited evidence that vitamin E prevents worsening of TD and no evidence that it improves TD symptoms.[5] Vitamin E might be most beneficial to patients who have had TD < 5 years.[6]

When prescribing vitamin E, be sure to discuss its risks and benefits with patients.

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