MINDFUL PRACTICE

Chamomile for Anxiety: What Peter's Mother Knew

BY JON O. EBBERT, M.D., AND ERIC G. TANGALOS, M.D.

The Problem

A 36-year-old industrial welder with a history of obsessive-compulsive disorder (OCD) and depression presents to you with worsening depression, anxiety, and fatigue. He is currently on sertraline. He reports low energy, low motivation, low self-esteem, difficulty concentrating, and poor appetite. He reports that his OCD is under control and his Patient Health Questionnaire–9 score is 14, indicating moderately severe depression. He screens negative for sleep apnea, and his thyroid function is normal. He consumes four 18-ounce mugs of coffee per day. You add bupropion to his regimen. Over the next several weeks, he responds well with significantly less depression, but he continues to have chronic, low-grade anxiety. You discuss with him your concerns that caffeine may be contributing to his anxiety, but he reports that it is a "habit" to have a warm beverage to consume throughout the day. He tells you that his uncle drinks chamomile tea for his anxiety, and he wonders if this would be a possibility for him. You agree to review the data for chamomile along with the possible drug interactions and will get back to him.

The Question

In patients with anxiety, does chamomile decrease symptoms of anxiety, compared with placebo?

The Search

You go to PubMed (www.pubmed.gov) and search "chamomile AND anxiety." You limit the search to randomized, controlled trials. You find a relevant study. (See box at right.)

Our Critique

This is the first randomized trial evaluating the use of chamomile extract therapy for anxiety. The anxiolytic effect of chamomile has been hypothesized to relate to binding to gamma-aminobutyric acid, noradrenaline, dopamine, and serotonin neurotransmission or through modulation of the hypothalamic-pituitary-adrenal axis. The authors discuss the challenge of determining the appropriate dose. Our patient would have been excluded from the study because of his OCD and concomitant medication use, and chamomile tea doses are impossible to titrate. Despite this, a trial of chamomile tea might be a reasonable clinical approach with monitoring for side effects. Chamomile should not be recommended in pregnant women because it may cause spontaneous abortion, and it should not be used during breast-feeding. Complementary medicine has roots in popular culture. For more background on chamomile tea, we suggest reading "The Tale of Peter Rabbit" by Beatrix Potter, in which Mother Rabbit gives Peter chamomile before bedtime.

Clinical Decision

You tell him that a potential interaction exists between *Chamomilla recutita* and sertraline. Specifically, large doses may increase the risk of bleeding because of the synergistic effects of chamomile's antiplatelet activity and the augmented inhibition of platelet serotonin uptake. You tell him to consume chamomile in moderation in the form of tea rather than as a tablet supplement.

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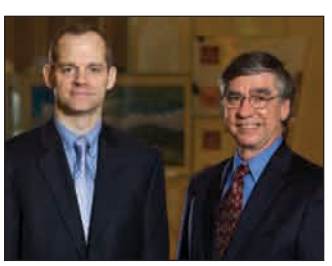
They report having no conflicts of interest. To respond to this column or suggest topics, write to Dr. Ebbert and Dr. Tangalos at our editorial offices or e-mail them at imnews@elsevier.com.



The Evidence

J.D. Amsterdam et al. A randomized, double-blind, placebo-controlled trial of oral Matricaria recutita *(chamomile) extract therapy for generalized anxiety disorder. J. Clin. Psychopharmacol. 2009;29:378-82. PubMed PMID: 19593179.*

► **Design and setting:** Randomized, controlled clinical trial done at outpatient general medicine and family practices at the University of Pennsylvania, Philadelphia.

► **Patients:** Potential subjects were eligible for enrollment if they were at least 18 years old and met DSM-IV criteria for generalized anxiety disorder (GAD), with anxiety symptoms as assessed by the Hamilton Anxiety (HAM-A) scale. Patients were excluded if they had major depression, bipolar disorder, panic disorder, phobic disorder, OCD, posttraumatic stress disorder, acute stress disorder, substance-induced anxiety disorder, psychosis, dementia, or substance abuse or dependence within the preceding 3 months. Subjects were also excluded if they had an unstable medical condition, hepatic or renal insufficiency, malignancy, abnormal serum thyrotropin level of at least 5 micro–International Units per milliliter or known sensitivity to chamomile, plants of the Asteraceae family, mugwort, or birch pollen. Concurrent use of anxiolytics, antidepressants, mood stabilizers, sedatives, or complementary or alternative medicine remedies (e.g., St John's wort) or other chamomile preparations was not permitted. Women of childbearing potential had to use a medically proven form of contraception with a negative pregnancy test result before starting therapy.

► **Intervention:** Subjects were randomized to 8 weeks of pharmaceutical-grade German chamomile extract (1.2% apigenin) or placebo (lactose). Blinding of aroma was achieved through use of chamomile oil. Chamomile was prepared as 200-mg capsules, with patients given one capsule per day for 1 week and two per day during the second week. Patients with 50% or less reduction in total HAM-A scores were increased to three capsules during week 3 and four capsules during week 4. Patients continuing to have 50% or less reduction in baseline HAM-A scores were increased to five capsules daily during study weeks 5-8.

► **Outcomes:** The primary outcome was HAM-A score changes. Secondary outcomes included changes in the Beck Anxiety Inventory (BAI), the Psychological General Well-Being (PGWB) index, and the Clinical Global Impressions, Severity of Illness (CGI-S) rating.

► **Results:** Of the 61 subjects who were enrolled, 57 were randomized (28 chamomile, 29 placebo). A significantly greater reduction over time in the mean total HAM-A score for chamomile versus placebo was observed ($P = .047$). Improvements in the BAI, PGWB index, and CGI-S scores were observed, favoring chamomile over placebo. Two patients discontinued treatment for adverse events (one placebo, one chamomile). No significant differences were observed in adverse events between the two groups.

Primary Care Docs Can Help Prevent Suicide in Veterans

BY DAMIAN MCNAMARA

FROM THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF SUICIDOLOGY

ORLANDO, FLA. — Primary care physicians and psychiatrists outside the military health care system have a pivotal role to play in helping to lower suicide rates, which have been on the rise across all components of the U.S. Army, according to according to Col. Elspeth Cameron Ritchie, MC USA.

There were about 166 suicides in the Army in 2009, a rate of approximately 21 suicides per 100,000 people, or more than twice the rate in 2001.

"We have had difficulties with access to care, we have stigma … and our services are only partially integrated," said Dr. Ritchie, medical director of the Army Medical Department's Office of Strategic Communications.

A lack of providers who accept the military health plan, TRICARE, is a barrier to those seeking care, Dr. Ritchie said. "The best way you as a provider can help is to sign up for TRICARE." Physicians who register for the program (www.tricare.mil) become a source for referrals and treatment outside of the military health care system.

Although most active and veteran military personnel receive health care services through institutions such as Walter Reed Army Medical Center and the Veterans Affairs system, there are exceptions. For example, some soldiers are students, have private insurance, or are members of the Reserves. This is where private sector physicians come in, she said.

Risk factors for suicide among a military population can differ from those in the general population. The typical solider at risk of suicide does not have a long history of mental health issues. "What we don't see is major mental illness," such as schizophrenia or bipolar disorder, that is disabling. Only about 5% of military suicides are associated with a diagnosis of personality disorders, which is "lower than I would have expected," said Dr. Ritchie, who also is a professor of psychiatry at Uniformed Services University of the Health Sciences, Bethesda, Md.

"We are seeing more and more" suicides spurred by relationship breakups and legal problems, she said. Under such circumstances, "unfortunately, screening does not work very well. They could screen just fine but get the 'Dear John' or 'Dear Jane' letter, buy a 12-pack, and go out and shoot themselves."

Effective interventions in a military population will require a comprehensive look at all the elements around suicide, including posttraumatic stress disorder (PTSD), mild traumatic brain injury (TBI), and depression. "This is not going to be an issue for just 1 or 2 years; these are going to be issues for 20 years or 40 years," Dr. Ritchie said. "So we all need to work on this together."

The type of warfare many soldiers see when deployed in Afghanistan or Iraq increases their risk for mild TBI and associated symptoms. "The signature weapon of this war is the blast. And that causes a lot of symptoms." Reexperiencing the trauma, numbing/avoidance, and physiologic arousal ("flight or fight" response) are the three main PTSD symptom clusters.

Army research suggests that soldiers need at least 2 years of noncombat time before their symptoms of anxiety and depression begin to wane. Reintegration can be a time of elevated risk for self-harm. "They have this high adrenaline from being in theater, and they don't know what to do with it. They take out a motorcycle and drive it at 120 mph.

"2009 was extraordinary year for suicide—highest they have been," Dr. Ritchie said. "It seems lower so far this year. We are holding our breath." ■