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FILE: ▪ Kava (*Piper methysticum*)
▪ Menopause
▪ Anxiety

HC 050552-289

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RE: Kava Shown to Reduce Anxiety in Perimenopausal Women

Cagnacci A, Arangino S, Renzi A, Zanni AL, Malmusi S and Volpe A. Kava-Kava administration reduces anxiety in perimenopausal women. *Maturitas*. 2003;44:103-109.

Many women experience mood disorders, especially depression and anxiety, around the time of menopause. These disturbances in mood may be a result of alterations in neurotransmitters subsequent to changing levels of circulating gonadal steroids. Although these symptoms may resolve with time, they can have a marked impact on a woman's quality of life while they occur.

The pharmacological approach to ameliorating mood includes the use of hormone replacement therapy (HRT), antidepressants, and benzodiazepines. However, these medications may have side effects, may be contraindicated, and frequently are not accepted by women. Many women now seek alternative remedies to address menopausal complaints. An extract from the rhizome of kava (*Piper methysticum*) has been proposed as a "natural" treatment for anxiety. Research has documented a variety of physiological effects of kava, including relaxation of skeletal muscle, sleepiness and central nervous system effects ranging from depression to euphoria. These varying results depend on the type of preparation used and the dose.

This randomized, prospective, open label study evaluated the effects of kava administration on anxiety, depression, and climacteric symptoms in perimenopausal women for 3 months. The study was conducted at the Menopause Center, Institute of Obstetrics and Gynecology, University of Modena, Italy. The inclusion criteria were amenorrhea for 6-24 months, occurring around age 47–53, with at least 3 hot flashes per day during a one-week evaluation period, and an FSH (Follicle Stimulating Hormone) value greater than 30 IU/L.

A total of 80 women were enrolled and were randomized to 3 different groups. All women received 1 g/day of calcium for 3 months. The control group (n=40) received calcium but no placebo, i.e. everyone knew who was on what. In addition to the calcium, the second group (n=20) received 1 capsule per day of kava (100 mg containing 55% kavain; plant part not specified) by mouth (Natural Bradel, Milano, Italy). The third group (n=20) received 2 capsules (200 mg/day) of the same preparation.

At the beginning of the study, and after 1 and 3 months, symptoms of anxiety, depression, and the climacteric were evaluated using self-rated scales in each woman. Women in the treatment groups were requested to return unused capsules at each evaluation. The statistical analysis was based on data from subjects who used more than 80% of the medicine. The researchers evaluated the symptoms of the subjects with 3 self-administered questionnaires: State Trait Anxiety Inventory (STAI), the Self-Evaluation Depression Scale (SDS) of Zung, and Greene's scale.

Six subjects in the control group, 5 subjects in the 100 mg group, and 1 subject in the 200 mg group dropped from the study. Therefore, the statistical analysis was performed on 68 women. Kava administration resulted in significant changes in the following parameters:

a) Decreased anxiety compared to both baseline and control group values after 1 and 3 months:
   Decreased anxiety compared to baseline (100 mg group: n=15, P<0.025 after one month; 200 mg group: n=19, P<0.0003 after one month; and 100 mg + 200 mg group: n=34, P<0.0001 after one month).
   Decreased anxiety compared to control group (100mg + 200 mg group: n=34, P<0.009 after 1 month).
   Anxiety was the only parameter that resulted in a significant change in comparison with controls.
b) Decreased depression compared to baseline values after 3 months (200 mg group: n=19, P<0.01 and 100 mg + 200 mg group: n=34, P<0.002).
c) Decreased Greene's climacteric score compared to baseline after 1 month (100 mg group: n=15, P<0.003; and 100 mg + 200 mg group: n=34, P<0.006), and after 3 months in all kava groups.

Researchers evaluated subjective side effects at 1 and 3 months through an interview and clinical exam. If side effects were present, a biochemical laboratory evaluation was performed. Six subjects receiving kava experienced nausea and gastric pain; in only 2 cases these symptoms induced the subjects to withdraw from the study. The authors state "[i]n all women with side effects, the biochemical evaluation did not show any alteration, including those parameters documenting liver toxicity." However, they do not mention what laboratory tests were performed. The authors point out that liver toxicity from kava is rare and is unlikely to be documented in small clinical trials.

Kava has demonstrated anxiolytic effects in several clinical trials with humans suffering from non-psychotic anxiety. In one study the effectiveness of kava in reducing anxiety was similar to that of benzodiazepines.[1] However, kava does not activate benzodiazepine receptors, nor does it have a depressive effect on attention or the response to verbal and visual tasks. The present study is congruent with previous research and indicates that kava is effective in reducing anxiety in perimenopausal women. Current guidelines on the safe use of this traditional herb can be found on the American Botanical Council website at: http://www.herbalgram.org/default.asp?c=122001press

— *Cathleen Rapp, N.D.*

References

[1]Lindenberg VD and Pitule-Schodel H. D, L-kavain in comparison to oxazepam in anxiety states. *Fortschr Med*. 1990;108:49-54.

The American Botanical Council has chosen not to reprint the original article.