



AMERICAN
BOTANICAL
COUNCIL

Post Office Box 144345
Austin, Texas 78714-4345
Phone 512/926-4900
Fax 512/926-2345
Email: abc@herbalgram.org
www.herbalgram.org

Mark Blumenthal
Editor

Wayne Silverman, PhD
Underwriting Coordinator

Betsy Levy
Densie Webb, PhD
Leela Devi, MSN, RN
Summary Writers

Karen Newton
Database Manager

Susan McFarland
Ginger Webb
Co-coordinators

Dawnelle Malone
Research Assistant

The American Botanical Council provides this summary and the enclosed article as an educational service. By providing this article, ABC does not warrant that the data is accurate and correct, nor does distribution of the enclosed article constitute any endorsement of the information contained or of the views of the authors.

ABC does not authorize the copying or use of the original articles. Reproduction of the summaries is allowed on a limited basis for students, colleagues, employees and/or customers. Other uses and distribution

HERBCLIP

FILE: · Migraine headache
· Feverfew (*Tanacetum parthenium*)
· Ginger (*Zingiber officinale*)

DATE: March 25, 1998

HC 012081

RE: **Natural Methods for Migraine Treatment**

Brown, D., A. Gaby, and R. Reichert. Clinical Applications of Natural Medicine: Migraine. *American Journal of Natural Medicine*, Vol. 4 (9), November 1997, pp. 14-16, 18-20.

Migraine headaches affect about 24 million people in the United States. A typical migraine begins with visual disturbances (known as an aura) such as flashing lights or wavy lines. These visual phenomena may be accompanied by numbness, vertigo, tinnitus, or a sense of distortion of body parts. This prodromal phase is followed by an acute phase of severe headache with nausea, vomiting, chills, sweating, irritability, and extreme fatigue. The acute phase can last for hours or days. After an attack, the individual may have head and neck pain and a need to sleep for an extended period. Three naturopaths discuss natural remedies for migraine headaches in this article.

Migraines may be triggered by stress, alcohol, pregnancy, menstruation, ingestion of tyramines, and some diuretics. The underlying cause of migraine is unknown. The authors discuss several theories exploring the interaction of the venous and arterial systems of the head, a possible neurological basis, and an interaction between arterial, venous, and specific neurons. Serotonin, histamine, tyramine, catecholamine (norepinephrine and dopamine), prostaglandin E, and free fatty acids may all play roles in the cause of migraines.

Nonpharmacological therapies may help to avert migraine attacks when used prophylactically. These include stress management, exercise, biofeedback, acupuncture, massage, manipulation, and transcutaneous nerve stimulation. Feverfew is the herb most commonly associated with migraine treatment. Ginger and ginkgo may also provide some relief.

The flowers and leaves of feverfew (*Tanacetum parthenium*) resemble chamomile. Parthenolide, a sesquiterpene lactone, is the believed responsible for the antimigraine activity of feverfew. Parthenolide inhibits platelet aggregation, histamine and arachidonic acid release, and

prostaglandin synthesis. It has also demonstrated an ability to inhibit release of serotonin from platelets and polymorphonuclear leukocyte granules.

Clinical studies indicate the efficacy of feverfew in the treatment and prevention of migraines. The Canadian government suggests a parthenolide content of at least 0.2 percent. With this minimum parthenolide standard, a daily dose of 125 mg of dried feverfew leaf may be efficacious. The most common side effect is mouth ulceration. Although commonly believed to be a sort of contact dermatitis resulting only from chewing the leaves, feverfew-induced mouth ulceration is in fact a systemic side effect that can be brought on by any administration of the herb (Awang, Dennis V.C. Personal communication with HerbClip, March 6, 1998). No long-term toxicity studies exist. Feverfew is contraindicated for pregnant or lactating women and children under age two.

Both ginger (*Zingiber officinale*) and ginkgo (*Ginkgo biloba*) show potential promise for migraine relief. The authors report a case history in which a woman experienced relief from migraines with the administration of 500 to 600 mg of ginger powder every four hours for four days. A daily dose of ginkgo (between 120 to 240 mg) may be helpful in the management of migraines. Clinical research on the use of ginkgo in the treatment of migraine is needed.

Magnesium is an important supplement in the control of migraines. One study found that during migraine attacks brain magnesium concentrations 19 percent lower in migraine patients than in healthy controls. Supplementation with riboflavin (400 mg per day) decreased migraine frequency by 67 percent and decreased severity by 68 percent in an uncontrolled clinical trial involving 49 patients. L-tryptophan may help lower frequency and intensity of headaches; however, the only clinical trial mentioned by the authors did not produce statistically significant results. Compared with healthy people, migraine patients have significantly lower concentrations of omega-3 fatty acids in platelet and red cell membranes. Omega-3 fatty acids, found primarily in fish oils and flaxseed oil, inhibit platelet aggregation. A small trial, comparing fish oil to a placebo, found significant improvement with fish oil in 15 patients who were unresponsive to antimigraine drugs.

Dietary restrictions can decrease the frequency and severity of migraines. Some patients find that foods containing tyramine bring on migraines. Eliminating foods containing tyramine from the diet can bring about notable improvement. Tyramine is found in aged cheese, yogurt, beer, wine, liver, yeast, and some other foods.

One study found that 76 percent of migraine patients tested had reactive hypoglycemia and 8 percent were diabetic. This study of 74 patients indicates that abnormal glucose metabolism may bring on migraines. Dietary therapy demonstrated significant improvement in these study participants.

Food allergies may also provoke a migraine attack. Following a five day exclusion diet, 60 patients were able to identify foods that caused symptoms.

The most frequent offending foods included wheat, orange, egg, tea and coffee, chocolate, milk, beef, corn, cane sugar, yeast, mushrooms, and peas. The authors recommend that all migraine patients be evaluated for food allergies and blood-sugar abnormalities. A low-tyramine diet should also be observed for a trial period. —*Leela Devi, MSN, RN*

Bin #131