Black Cohosh –

An Herbal Approach to Ease the Transition to Menopause

Pamela Manning, MS, RD

Menopause is the point in a woman's life when menstruation stops permanently, signifying the end of her childbearing years. Known to many as the "change of life," menopause is actually the last stage of a gradual biological process in which production of female sex hormones is reduced. Perimenopause is the name given to the transitional period of menopause, the three to five years prior to the final menstrual period. It is during this time that hormones fluctuate greatly and many women experience hot flashes, night sweats, mood swings, fuzzy thinking, and insomnia.

Although perimenopause can be easy for some women, others find the changes extremely debilitating and disruptive. Hot flashes are the most common symptom of menopause.[1] They regularly disturb sleep and cause feelings of fatigue, poor concentration, and mood swings, all of which can greatly interfere with a woman's quality of life.

Conventional Treatment

One choice for making hot flashes disappear is hormone replacement therapy (HRT). However, HRT may cause unpleasant side effects such as bloating, irritability, breast tenderness, vaginal bleeding and an increased risk of breast cancer. Therefore, making the decision to take HRT is not simple and many women are now looking for a natural alternative.

Black Cohosh

Herbal medicine offers a variety of treatments to ease hot flashes, but few have been sufficiently researched to date. One exception, however, is the herb black cohosh (*Cimicifuga racemosa*), a member of the buttercup family. Native Americans used the rhizome (false root) for general malaise, kidney ailments, rheumatism, and conditions specific to women.

In the 1930's, black cohosh was introduced into Germany and evolved as a medical modality, becoming a legitimate therapeutic agent supported by pharmacological and clinical research. A number of chemical constituents are believed to be responsible for the biological activity of the herb: the triterpene glycosides cimicifugoside, actein, and 27-deoxyactein as well as the isoflavone formononetin.[2] Efficacy of black cohosh root extracts for symptoms of menopause appear to be dependent upon at least three different fractions that work synergistically.[3]

Clinical Studies

Studies conducted in Germany support the use of black cohosh for treating perimenopausal symptoms. A 12-week, double blind, placebo-controlled trial compared conjugated estrogen, black cohosh extract, and a placebo.[4]

Eighty menopausal women received either 0.625 mg of estrogen, 8 mg of a standardized black cohosh extract, or a placebo. Measures included neurovegetative symptoms (hot flashes, night sweats, heart palpitations, and headache), anxiety-related symptoms (nervousness, irritability, insomnia, and depressive moods) and changes in vaginal cell proliferation.

Black cohosh resulted in significant improvement in all three parameters. The estrogen proved to be delivered at too low a dose for reliable comparison. The authors concluded that black cohosh produced safe and efficacious results and could be a suitable treatment option for menopausal symptoms.

In a second study, German researchers compared black cohosh extract to estradiol, conjugated estrogen, and estrogen-progesterone combination therapy.[5] Sixty women under the age of 40, who had a least one ovary removed and complained of climacteric symptoms, were randomly divided into 4 groups. Again symptoms such as hot flashes, sweats, insomnia, and mood swings were evaluated. Results found black cohosh extract to be comparable to all three hormone preparations.

In 1991, Duker isolated three types of endocrinologically active fractions from black cohosh extract and conducted a study involving 110 menopausal women, comparing the effects of black cohosh extract to a placebo.[6] After 8 weeks of use, black cohosh was found to inhibit luteinizing hormone (LH) secretion, thereby confirming an estrogenic-like effect of the herb.

Mechanism of Action

Although a number of studies have called the action of black cohosh "estrogen-like," a clear mechanism of action has not been described. Estrogenic-like effects have been proposed based on LH-lowering effects and the assumption that the triterpene glycosides found in the herb somehow interfere with hormone receptor binding in the hypothalamus and pituitary gland.[7] However, recent studies have failed to show that estrogenic effects and hormone levels (LH or follicle-stimulating hormone) were influenced by black cohosh administration.[8] These results suggest that black cohosh may work by some other, non-hormonal mechanism.

96

Safety

Although the literature suggests large doses of black cohosh may cause dizziness, nausea, and severe headaches, these symptoms can be traced to homeopathic proving of the herb.[9] Studies on mutagenicity, teratogenicity, and carcinogenicity have been negative. Administration longer than six months at 90 times the human dose equivalent in rats failed to show chronic toxicity.[9] The most common discomfort reported in clinical trials has been occasional stomach upset.

Conclusions

Menopause is a time of change. Clinical trials in Germany appear to support black cohosh for treating the transitional symptoms of menopause such as hot flashes. Its efficacious use long term for other menopausal concerns such as preventing bone loss or heart disease has not yet been determined. More research is warranted to better understand what role black cohosh may have as a natural alternative to HRT.

References

1. Kronenberg F, Cote LJ, Linke DM. Menopausal hot flashes: thermoregulatory, cardiovascular and circulatory catecholamines and LH changes. *Maturitas*. 1984;6:31-43.

2. Harnischfeger G, Stolze H. Black cohosh. *Notabene Medici*. 1980;10:446-450.

3. Jarry H, Hornischfeger G, Duker E. Studies on the endocrine efficacy of the constituents of *Cimicifuga racemosa*: 2. *In vitro* binding of constituents to estrogen receptors. *Planta Med*. 1985;51:316-319.

4. Stoll W. Phytotherapeutikum beeinflubt atrophisches Vaginalepithel:Doppelblindversuch Cimicifuga vs. Östrogenpräparat. (Phytotherapy influences atrophic vaginal epithelium. Double-blind study - Cimicifuga vs. estrogenic substances). *Therapeuticum*. 1987;1:23-32.

5. Lehman-Willenbrock E, Riedel HH. Clinical and endocrinological examinations concerning therapy of climacteric symptoms following hysterectomy with remaining ovaries. *Zentralblatt fur Gynakologie*. 1988;110:611-618.

6. Duker E-M, Kopanski L, Jarry H, Wuttke W. Effects of extracts from *Cimicifuga racemosa* on gonadotrophin release in menopausal women and ovariectomized rats. *Planta Med*. 1991;57:420-424.

7. Gruenwald J. Standardized black cohosh (*Cimicifuga*) extract clinical monograph. *Quarterly Review of Natural Medicine*. 1998; Summer:117-125.

8. Liske E, Wusterberg P. Therapy of climacteric complaints with *Cimicifuga racemosa*: herbal medicine with clinical proven evidence. *Menopause*. 1998;5:250.

9. Beusher N. *Cimicifuga racemosa* L – Black cohosh. *Z Phytotherapie*. 1995;16:301-310.

Pamela Manning, MS, RD is a nutritionist and project manager in the Health Sciences Department at Shaklee Corporation in San Francisco. Pmanning@shaklee.com.