

Other herbal preparations for the menopause (beyond isoflavones and black cohosh)

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There is no doubt that hormone replacement therapy (HRT) with estrogen is successful in alleviating menopausal symptoms. A decade ago, the Women's Health Initiative (WHI) has published an alarming report regarding possible health risks of HRT.

Although this conclusion has repeatedly been overturned many women request "natural products" to alleviate their symptoms. Several herbal preparations and over the counter (OTC) nutraceuticals have been recommended because of their phyto-estrogenic and alleged health-promoting properties.

Hormones, herbal preparations and nutraceuticals for a better life after the menopause: part I

Comhaire F and Depypere H. Climacteric 2015 Pages 358-363.

Hormones, herbal preparations and nutraceuticals for a better life after the menopause: part II

Comhaire F and Depypere H. Cimacteric 2015 Pages 364-371

Extensive literature search was performed using the PUBMED system, Google scientific and derived articles. The papers were critically reviewed analyzing the evidence of possible effectiveness regarding menopausal symptoms and women's health. Whenever possible, numbers needed to treat (NNT) and numbers needed to harm (NNH) were calculated, as well as the cost per favorable outcome.

Cimicifuga racemosa

Extracts of *Cimicifuga racemosa* (“black cohosh”) are commonly recommended for the phyto-therapy of menopausal symptoms. Randomized placebo-controlled trials have not revealed any statistically significant effect on vasomotor complaints compared to placebo. Recently, contradictory reports have been published regarding possible hepatotoxic damage in relation to the use of black cohosh. After having received a large number of case reports, the Medicines and Healthcare Products Regulatory Agency (MHRA) has obliged the distributors of black cohosh to include a warning that liver damage may occur, such as abnormal liver enzymes in blood, jaundice and hepatitis. In addition, black cohosh has been suspected to increase the risk of cardio-vascular disease.

Vitex agnus-castus



The fruit-oil of the *Vitex agnus-castus* has been used in natural medicine for the treatment of the premenstrual syndrome. Its binding to the estrogen receptor is attributed to the presence of linoleic acid which induces certain estrogen-dependent genes. This substance seems to exert some dopaminergic action, but a favorable effect on menopausal symptoms could not be evidenced in a randomized controlled trials, also when combined with the extract of *Hypericum perforatum* (St. John's Wort).

Dioscorea Villosa



Diosgenin is the saponine extracted from the *Dioscorea villosa* (wild yam). We have shown that diosgenin does not bind to the human estrogen receptor *in vitro*, and it can not be converted into progesterone. Dioscorea may be given to women who have been treated for breast cancer.

A significant favorable effect of Dioscorea extract on menopausal symptoms has been observed, but it seems to be rather weak. Dioscorea extract decreases the estrogen metabolisation into the genotoxic metabolite 16 α -OH-oestrone.

Dioscorea Villosa

In animal experiments, diosgenin was found to exert an anti-osteoporotic effect by appositional growth to the long bones, possibly through the inhibition of osteoclast formation. However studies on a bone-protecting effect in humans are lacking.

Linum usitatissimum



Linseed or flaxseed (*Linum usitatissimum*) extract is a rich source of lignans, which are converted into enterodiol and enterolacton by the gut bacteria. These lignans exert a weak estrogenic effect. Linseed extract was moderately effective on menopausal vasomotor symptoms, and its effectiveness compared to placebo was confirmed in one randomized trial but not in another trial.

Linseed extract increases the 2OH/16OH-oestrogen ratio more effectively than the soy- isoflavones.

Linum usitatissimum

In addition, enterolacton inhibits the aromatase enzyme, so that less estradiol is produced intracellularly from the precursors testosterone and dehydroepiandrosterone.

Several publications suggest that the intake of linseed extracts may protect against hormone-dependent breast cancer, but this could not be confirmed in a recent population study.

Lignans were reported to increase the time of survival of a cohort of breast cancer patients. Also, dietary lignans may have the potential to protect against cardiovascular risk.

Pine bark extract



The extract of the bark of the (Mediterranean) pine tree is rich in anthocyanidins with anti-oxidant effect, and it reduces inflammatory reaction through the inhibition of the Cyclooxygenase (COX) enzymes 1 and 2 and of the Nuclear Factor kappa B (NF- κ B).

In 3 randomized double-blind trials Pycnogenol® was found to significantly reduce vasomotor symptoms and to improve the quality of life of menopausal women, while diminishing the prevalence of atherosclerotic vascular disease.

Cruciferous vegetable



The extract of several plants of the *Brassica species*, including Broccoli, Brussels sprouts, cabbage and savoy, contains glycosilates which are hydrolyzed in the body into indol-3-carbinol and di-indolmethane.

These constituents are under investigation in clinical trials for their chemo protective effects against gynecological cancers. They activate the P450 enzyme and promote the estrogen metabolism toward the 2-OH-estrogens.

Cruciferous vegetable

Broccoli extract is an important source of sulforafane that has a demethylating effect, influences the epigenoma, and protects against (breast)cancer. The extract contains Phylloquinone, also called vitamin K1, that has been reported to reduce the risk of bone fractures in aging women and to slow the progression of coronary artery calcium deposits.

Though Brassica extract does not reduce menopausal symptoms, the benefit of its moderate consumption is considered to outweigh the potential risks.

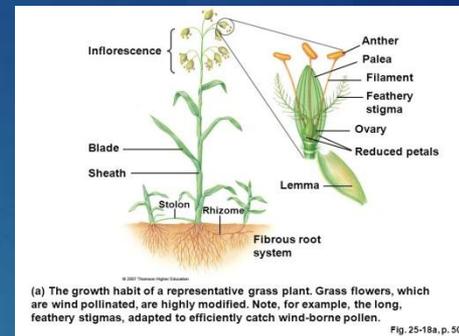
Lepidium meyenii



Lepidium meyenii, also called Maca, is another plant belonging to the cruciferous (Brassica) family, and grows in the Peruvian Andes mountains. It is considered to be a phyto-adaptogen which increases the production of the Heat Shock Protein P 70, thus reducing the negative impact of stress on protein conformation and cell death.

Lepidium meyenii has been tested against menopausal symptoms, and was found to reduce the Kupperman Menopausal Index and the Greene Climacteric Score in a controlled trial. Tolerability is excellent and no serious adverse effects have been noted.

Pollen extracts



OBJECTIVES:

This study aimed to evaluate whether Femal, a herbal remedy made from pollen extracts, alleviates the symptoms of the menopause, especially hot flushes.

DESIGN:

A randomized, double-blind, placebo-controlled, parallel trial of 64 menopausal women, of whom 54 completed the trial. After an initial run-in phase of 1 month, the women were randomly given either two Femal tablets each morning, or two identical placebo tablets, for 3 months of treatment. On inclusion, and then at 4-week intervals, the patients were asked to evaluate 16 symptoms of the menopause using Menopause Rating Scales (MRS). In addition, every day throughout the study, certain menopausal symptoms were recorded in a diary. Winther et al. Climacteric.2005 Jun;8(2):162-70

Pollen extracts

RESULTS:

The two treatment groups were identical regarding demographic data and the initial symptom scores. In the active-treatment group, 65% responded with a reduction in hot flushes compared with 38% in the placebo group ($p < 0.006$) and, in this group, the number of hot flushes registered in diaries declined after 3 months by 27% as compared to the placebo group ($p < 0.026$).

CONCLUSION:

The pollen extract Femal significantly reduces hot flushes and certain other menopausal symptoms when compared to placebo.

Pollen extracts

Background and Objectives: currently the formulation with 40 mg of GC Fem and 120 mg of PI 82, in addition to 5 mg of vitamin E, seems to offer many perspectives for menopause women, in order to reduce disorders related to peri- and post-menopausal neuro-vegetative symptoms.

Moving from this assumption, the objective of this study was to assess the efficacy of GC Fem, PI 82 and vit E (Femal®) on menopause neurovegetative symptoms, comparing the compound object of the study with a placebo and an hormonal formulation containing 1 mg of hemihydrate estradiol and 2 mg of drospirenone, a formulation with demonstrated efficacy on neuro-vegetative symptoms.

M N D'Alterio et al. Multidisciplinary Journal of Women's Health 2015.

Pollen extracts

Materials and Methods: forty-seven postmeno - pausal women (range of age: 51-54 years) were randomly divided into three groups. Group A includes patients treated with Placebo (n.15). Group B contains patients treated with the compound of 40 mg of GC Fem and 120 mg of PI 82, in addition to 5 mg of vitamin E (n.16). Group C includes patients treated with the association E2 (1mg) + drospirenone (2mg) (E2+DRSP) (n.16). The total duration of the study was 6 months. After the basal assessment of neurovegetative symptoms with Kupperman Index (KI), on the third and sixth month of study, in every subject the intensity of neurovegetative symptoms was assessed.

Results: the considered KI parameter is not different among the three groups of women in basal conditions. Assessing the score of neurovegetative symptoms (KI), a considerable reduction was reported both in group B and in group C by the third to the sixth month of observation. In group A values remained stable from the third month of observation.

Conclusion: this study seems to confirm the efficacy of the therapy with GC Fem, PI 82 and vit E to reduce the intensity of the neurovegetative symptoms of menopause. Its effect in the reduction of KI score is similar to that of the estrogenprogestin replacement therapy.

