

Menopause, the Liver and TCM

In the months to years following the cessation of periods, a woman's estrogen levels gradually begin to decline. In addition to estrogen, other hormones produced by the ovaries including progesterone and testosterone also decline during this time. Such inevitable changes in hormone levels can significantly affect a women's health for years to come.

Menopausal women can experience irregular periods, vaginal dryness, fatigue, hot flashes, sweating or night sweats, early awakening or insomnia, thinning of hair, anxiety, dry skin, irritability, moodiness, and a reduced sex drive. These symptoms are caused by the damage brought to the liver and kidneys from the physiologic and biochemical changes associated with the decline of estrogen and other hormone levels.

Menopausal symptoms impair the quality of life of many women, and although conventional treatments can help to relieve some of these symptoms, their use is limited by adverse effects.

Estrogen and the Liver

Estrogen exhibits a number of beneficial roles in helping to maintain liver function. These include promoting coagulation, maintaining proper fluid balance, and fostering increases in high-density lipoproteins (HDL) and decreases in low-density lipoproteins (LDL) that lead to favorable lipid profiles.⁴

Within the liver, estrogen protects the liver from fibrotic tissue formation by inhibiting the proliferation of satellite cells and fibrogenesis, which can cause liver fibrosis upon activation.⁴ Estrogen also protects liver mitochondrial structure and function, inhibits cellular senescence, increases innate immunity, and promotes antioxidants.⁴

Menopause represents a state of growing estrogen deficiency. This loss of estrogen in the setting of physiologic aging puts the liver at a great risk of becoming damaged, resulting in compromised liver function. Estrogen decline greatly increases the likelihood of liver mitochondrial dysfunction, declining immune responses to injury, and disarray in the balance between antioxidant formation and oxidative stress.

The sum effect of these changes will increase the liver's susceptibility to the development of significant liver pathology, particularly nonalcoholic fatty liver disease. For patients who already have a liver disease, it will accelerate the progression of fibrosis. Declining liver function can further pose challenges to the kidneys, causing kidney inflammation and damage, as toxins in the blood may not be detoxified properly by the liver.

Hormone therapy (HT) has been used to treat symptoms of menopause. While HT helps many women get through menopause, the treatment has many potential side effects including increased breast cancer recurrence; as well as risk of endometrial cancer and ovarian cancer. If HT is started

after midlife, it can increase the risk of endometrial cancer, blood clots and stroke, gallstones and gallbladder problems, Alzheimer's disease and dementia.

Wellness Recommendation to Relieve Menopause Symptoms

To help combat menopause symptoms, TCM focuses on promoting liver and kidney health. By improving the liver's structure and function, herbal compounds alleviate the liver's fatigue and congestion, and help buffer the hormone changes to adjust to the new metabolic condition. Improved liver detoxification capabilities helps relieve menopause-related physical and emotional symptoms.

Herbs such *Alisma orientale* (*zexie*) have endless benefits on liver health. It promotes antioxidant, hepatoprotective, anti-inflammatory, antifibrotic, and hypolipidemic effects.¹ *Angelica sinensis* (*danggui*) is an estrogenic plant, meaning it has a positive effect on sex hormones, and has been shown to alleviate the cognitive deficits during menopause.³

Other estrogenic plants like *Salvia officinalis* (*shuweicao*) have been shown to directly alleviate symptoms of menopause such as hot flashes, impairment of memory function and depression.² Reishi mushroom (*lingzhi*) has energizing properties, reduces stress levels and is a natural hormonal regulator. It is known for its adaptogenic capacity, being a powerful hormonal-balancing mushroom.⁵ Many of the symptoms of menopause indicate an increase in general inflammatory state, which is why reishi has an important role due to its antioxidant and anti-inflammatory capacity.⁵

Selected Case Study: Resolution of Menopause Symptoms

— *Jane Rohan, LAc, MA*

A female patient in her early 50s was suffering from insomnia, hot flashes and many of the other symptoms associated with menopause. She had tried raw herbs and other homeopathic remedies , which didn't help to alleviate all of her symptoms.

The practitioner recommended an herbal formula that contained *Alisma orientale* (*zexie*), *Fructus lycii* (*gouqizi*; barbery wolfberry fruit) and three other herbal ingredients. This herbal formula helps improve the liver's structure and function, alleviate the liver's fatigue and congestion, and buffer the hormonal changes to adjust to the new metabolic condition. With improved liver detoxification capability, it helps relieve menopause-related physical and emotions symptoms.

Other formulas that target the kidneys were also recommended. These included herbs like reishi mushroom (*lingzhi*), *Gynostemma* (*jiaogulan*), and nine other herbal ingredients to help improve kidney structure and function to promptly filter out the metabolic waste, and relieve fatigue and hot flashes.

Not only was the patient relieved of all her symptoms, but she also had the added benefit of a blood-sugar reading below 100! The patient has more energy, more clarity and more stamina when working out.

References

1. Choi E, Jang E, Lee JH. Pharmacological activities of *Alisma orientale* against nonalcoholic fatty liver disease and metabolic syndrome: literature review. *Evid-based Comp Alt Med (eCAM)*, 2019:2943162.

2. Ko BS, Ryuk JA, Hwang JT, et al. Ojayeonjonghwan, an Oriental medicine composed of five seeds, protects against vasomotor and neurological disorders in estrogen-deficient rats. *Exper Biol Med*, 2019;244(3):193-206.
3. Echeverria V, Echeverria F, Barreto GE, et al. Estrogenic plants to prevent neurodegeneration and memory loss and other symptoms in women after menopause. *Front Pharmacol*, 2021;12:644103.
4. Palmisano BT, Zhu L, Stafford JM. Role of estrogens in the regulation of liver lipid metabolism. *Advanc Exper Med Biol*, 2017;1043:227-256.
5. "Which Mushrooms Have Useful Properties for Menopause?" Hifas Da Terra, Sept. 18, 2020. [Web link available in digital version of Dr. Li's article.]

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