



CLINICAL CORNER

Eye Disorders and TCM: Glaucoma and Cataracts

Glaucoma

Glaucoma is a group of eye conditions characterized by progressive optic nerve damage caused by an increase in intraocular pressure. Glaucoma is the second most common cause of blindness in the U.S. and worldwide. Approximately 3 million Americans and 64 million people worldwide have glaucoma, but only half are aware of it. Glaucoma can occur at any age, but is six times more common among people over the age of 60.

Elevated eye pressure is due to a buildup of a fluid (aqueous humor) that is produced by ciliary bodies and flows throughout the inside of the eye. This internal fluid normally drains out through a tissue called the trabecular meshwork.

The trabecular meshwork is the spongy tissue located at the angle where the iris and cornea meet and it is responsible for regulating the outflow of aqueous humor. When fluid is overproduced or the drainage system doesn't work properly, the fluid can't flow out at its normal rate and eye pressure increases.

TCM Herbs & Glaucoma



The TCM approach in the fight against glaucoma is to remove eye deficiency heat, which helps relax the trabecular meshwork epithelial cells and improve the drainage function of the trabecular meshwork to resolve the drainage blockage. This process helps to improve fluid circulation, which decreases eye pressure.

The herbal ingredient *Cortex moutan* helps to improve blood circulation to remove stasis, and has been shown to have strong antioxidant effects through alleviating oxidative stress and decreasing ROS production; specifically, it protects the retinal epithelium cells from oxidative stress.¹ Herbal formulas containing American ginseng and *Fructus lycii* with other herbs work synergistically to improve systemic microcirculation and liver function, which helps to support the effects of removing the deficiency heat.⁴⁻⁵

Cataracts

Cataracts are the leading cause of reversible vision loss in the world. There are several risk factors for cataract formation, with age being the most impactful. Age-related cataracts are responsible for nearly half of all blindness worldwide and half of all visual impairment in the U.S.

A cataract is a clouding of the normally clear lens of the eye. The eye lens is positioned behind the iris and focuses light that passes into the eye, producing a clear, sharp image on the retina. For people who have cataracts, seeing through cloudy lenses is a bit like looking through a frosty or fogged-up window.

Cataracts affecting the central zone of the lens, also known as the nucleus, are called nuclear cataracts. They cause the lens to become a yellow color and eventually turn the lens brown. Nuclear cataracts are the most common type of age-related cataract.

Oxidative stress is a significant factor in the pathogenesis of senile cataracts. The oxidative

processes increase with age in the human lens, leading to an aggregation of the crystallin inside the fiber cell, causing opaque lenses. Increased oxidative stress occurs in the fiber cells when glutathione (GSH), the antioxidant in the nucleus, is depleted and the normal robust oxygen radical scavenger systems in the lens fail with advancing age.

TCM Herbs and Cataracts

The TCM approach in the fight against cataracts is to nurture the eye *yin*, which helps improve the fiber cell structure of the eye lens and the metabolism of the lens; thus supplying sufficient GSH to the lens nuclear to reverse the protein crosslink. Herbal ingredients such as *Lycium barbarum* address eye health through effectively protecting the retina from neuronal death, apoptosis, glial cell activation, and oxidative stress.²

Cortex moutan is also helpful in cataract treatment by improving circulation to the eyes and enhancing nutrient absorption to support the eye with necessary nutrients and improved mitochondrial function.¹ *Semen cassiae* is also important because it helps to nourish and strengthen the liver, which further supports eye health.³

Case Study: Decreased Eye Pressure in a Glaucoma Patient

— Mayda Carrillo, AP/RN, FL

A 72-year-old female suffering from glaucoma visited Dr. Carrillo in February. Her eye doctor had done an examination and her eye pressure was very high. Dr. Carrillo recommended a formula containing *Cortex moutan*, *Radix glycyrrhizae*, and seven other herbs that help clear eye deficiency heat and improve fluid circulation of the eye.

After 1oneweek of using the formula, the patient's eye pressure had dropped by 25 percent. However, the patient was having trouble digesting the herbs, so Dr. Carrillo started to work on improving her stomach condition using herbal juices along with diet adjustment so she could continue on the formula.

The patient resumed the protocol featuring the nine-herb formula together with liver- and kidney-supporting formulas. The patient took a total of three bottles of each product. Four months later, results of another eye examination revealed that her eye pressure was completely normal. Her original pressure was 13 mmHg on the right eye and 24mmHg on the left. On follow-up, the pressure was 10 mmHg on the right eye and 8 mmHg on the left eye. The patient is extremely happy about the results and is now able to avoid surgery.

References

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