



## Use Three Herbal “Bullets” to Shot Glaucoma

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### Abstract

Glaucoma patients may feel sad because that their doctors may inform them that there are no drugs to totally cure their vision loss but only to keep the symptom not going to be further worse. And the commonly used eye drops for glaucoma patients such that Timolol maleate and Latanoprost are chiefly to reduce the eye pressure, even if certain people do not show high eye pressure symptom they are still treated with those eye pressure reducing eye drops. The traditional Chinese medicine practitioners normally consider that to cure age related macular degeneration and glaucoma with drugs directly applied to the eye is curing the surface. To cure the unhealthy internal organs such that liver and kidney is to cure its root.

The central retinal artery is 163  $\mu\text{m}$  in diameter. It is so narrow a neck like a sand-timer that can't let enough blood flow to nourish the delicate retina cells. The retinal blood flow was 38.1  $\mu\text{l}/\text{min}$ . That means approximately 0.038 ml/min, or 54.72 ml/day. If the average blood volume of an adult is 5,000 ml, use 5,000 divided by 54.72 ml/day, it produces 91.37 days.

So, the author used three ways: A direct nutritional eye washing solution; the herb recipe containing Di Long (dried earthworm) and saffron that can clean the whole body vascular system thus to reduce subclinical detectable capillary blood clot; the 17-herb tea that may strengthen liver and kidney and benefit to circulation, thus to re-vitalize the retina cells. It is actually a complicated TCM method to help glaucoma patients.

### Rapid Communication

A friend of mine, aged 85 as of 2018, who was a famous professor in aerodynamic computation before retirement, called as Mr. W in this article. He got the glaucoma for several years and went through surgeries more than two times in both eyes and his left eye is going to be worse towards blindness. Another person, a research scientist in Biochemistry, aged 79, I call her as Mrs. G here, who had been diagnosed as the early stage of open angle-type glaucoma for two years without obvious high eye pressure symptom and her right eye-vision was getting worse, although she used two kinds of eye drop separately daily (Timolol maleate 0.25%; Latanoprost 0.005%), to prevent eye pressure going up. Both of them felt sad that the ophthalmologists told them that there was no way to cure glaucoma. The only way is to keep the vision not to be further worse by using drugs or to do the surgery. Mr. W almost gradually lost confidence in curing his glaucoma eyes based on his experience with western medicine. He said to me in Chinese: “我祇能把死马当活马骑 (I could only take the dead horse as a living horse to ride, which has the real meaning: There is no way helpful, thus, I could only try in a way blindly with the least hope)”. He asked me: “Since you are a Cell Biologist with quite lot of Traditional Chinese Medicine (TCM) knowledge, could you please do me a favor to develop certain kind of TMC recipe to save my losing vision? I will not blame to you, even the result of your suggested method could be against your expectation. It's my desire to try as I had said that I could only take the dead horse as a living horse to ride- 把死马当活马骑 and Mrs. G also has the similar request to me.

With the hope that I can do something good for my friends to keep or improve their losing eye vision. I searched and investigated extensively on both Chinese literature and English literature related to the treatment of glaucoma, now, I am writing this article for them as well as for other glaucoma patients to read. First, I feel that either higher eye pressure caused glaucoma or none high eye pressure peripheral retinal cell death could be all contributed to the bad blood microcirculation of the eye and malnutrition situation of the retina cells, just like the dry weather plus no sprinkle watering to the grass. The withering grass is due to the bad lawn care. From anatomical structure of the eye I might say that don't think that everything in our body is naturally reasonable. The retina of the eye is one of the highest energy users and oxidation required tissues, but, the whole eyeball blood supply is only depending on a very thin central retinal artery and circulate back to the small

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vein, both of them are located in the center of the ocular nerve at the back of the eyeball, which is rather similar to a cherry fruit attached to a tiny stalk. I feel it unreasonable design of our eye nutritional supply. To me the thin central retinal artery of the diameter less than 1/5 mm is too heavy a burden to transport oxygen and nutrients to keep a well maintenance of the delicate retina. So, when the aged process goes on and the malnutrition status happens, such that high fatty food diet deposition of wastes in the capillaries that may cause blood vessels having none detectible micro-capillary clots forming, which may cause the subclinical blockage or narrowing of the diameter of small arteries, veins and micro capillaries, etc. And Americans are Hamburger and other fatty-foods lovers. I heard that specialists had said that it might be impossible for a man of over 50 years of age having no any small clots in his/her whole blood system. Thus, one may expect that Age-related Macular Degeneration (AMD) and glaucoma were so common among old people in America.

My consideration to resolve AMD and glaucoma, it should to offer certain compensates to the eye structurally unreasonable design. The first herbal “bullet targeting to glaucoma” is aimed to improve the eye nutritional supply. The second herbal “bullet” is aimed to clean the whole body vessel system. The third herbal “bullet” is the re-irrigation to save the retina cells at the threshold of their death, just like to pour water immediately to the withered lawn-grass before the roots are going to death. To reach that purpose, to enhance the health condition of liver and kidney should be rather important than merely to reduce the eye pressure.

### Bullet 1: The Herb Recipe that Might be Able to Improve the Eye Nutrition

I had published a paper to describe how to make a kind of Nutritional Eye Washing Solution, to which I gave the shortened name as “NEWS” [1]. It contains vitamins, lutein, Himalayan salt and other herbal extractions. It is used as an eye washing solution to compensate the difficulty of the thin central retinal artery to bring the enough nutrients to nurse the eye retina. In that article I had indicated that eyes are always in malnutrition status [1]. Here I want to give you a calculation date of mine. According to the article the calculated mean diameter of the central retinal artery is of  $163 \pm 17 \mu\text{m}$  [2]. Retinal blood flow was  $38.1 \pm 9.1 \mu\text{m}/\text{min}$ . That means approximately  $0.038 \text{ ml}/\text{min}$ , or  $0.038 \times 60 \times 24 \text{ ml}/\text{day} = 54.72 \text{ ml}/\text{day}$ . This is quite like the sands passing through the sand timer’s very narrow neck. If the average blood volume of adult is 5,000 ml, use 5,000 ml divided by  $54.72 \text{ ml}/\text{day}$ , it produces 91.37 days. That is to say, it needs to spend 3 months the whole blood of a man can pass through the eye; or, one and half months to pass through two eyes. So that you can image how long it needs to let your 20 mg of lutein pill that you took, absorbed by intestine, dispersed to the whole blood system, then to benefit to your eyes. My “NEWS” might be much faster to let vitamins and herbal compounds to be utilized by eyes. For detailed information about how to prepare and use that nutritional eye washing solution, please read article at reference [1].

### Bullet 2: The Herb Recipe can Clean the Whole Body Vascular System

If someone got glaucoma, took medicines and even got surgery, however, he/she does not pay attention to his/her daily foods that could cause circulation problem, the cure of glaucoma will be hopeless. Chinese physicians or TCM practitioners are always telling patients to do “忌口” (to avoid eating something in diet). I think that

**Table 1:** Vision Guard Tea for Glaucoma with 17 Chinese herbs.

葛根	Radix Puerariae	50 g (cut to smaller pieces first)
丹参	Salvia miltiorrhiza Bge	50 g (cut to smaller pieces first)
川芎	Ligusticum chuanxiong Hort.	50 g
生地黄	Rehmannia Glutinosa Libosch	30 g (cut to smaller pieces first)
白茯苓	Poria cocos	30 g (cut to smaller pieces first)
枸杞子	Wolfberry	30 g
金果榄	Tinospora stem powder	30 g
决明子	Cassia obtusifolia	30 g
石决明	Haliotis diversicolor	30 g (crash it first)
甘草	Licorice	30 g
黄耆	Astragalus membranaceus	30 g (cut to small pieces first)
白芍	Paeonia lactiflora Pall	30 g
蝉蜕	Periostracum cicadae	30 g (get rid of sands as possible)
白芷	Angelica dahurica	15 g
三七粉	Notoginseng powder	15 g
黄栀子	Cape Jasmine Fruit	15 g (crash it first)
藏红花	Saffron	1 g

is very important to glaucoma patients.

My suggestion is that “No Hamburger”, “No lamb meat”, “No oily beef”, “No ice cream and cakes with trans fat or hydrogenated hard oil” etc. Instead of that, one needs to use cold pressed olive oil, Himalayan salt, pineapple, or, more berries and fruits. Besides, I recommend them to find some ways to clean the blood vessels and enhance the liver and kidney functions. One of the recipes I suggested is that:

3 g of Chinese herb: Di Long 地龙 (cleaned and dried earthworm)

5~6 pieces of stigma of 藏红花 (or Persian saffron, or Spanish saffron) [3,4]

3 g to 5 g of crystal sugar

10 ml of 50% alcohol or 100 度杜松子酒或龙舌兰酒 (100 proof Gin or Tequila wine)

100 ml of distilled water or drinking water (which maybe better to add after the 50% alcohol sterilizes the 地龙 and 藏红花 for three minutes)

Put in a small glass cup. Then, put the cup in a water bath, adjust the temperature to  $70^{\circ}\text{C} \sim 80^{\circ}\text{C}$  and cook for 40 min to kill bacteria, however, it could keep the lumbrokinase activity not be totally killed. Then, cool to the room temperature before use.

Drink the above yellowish tincture (Figure 1) twice a day when the stomach is empty. That may help to dissolve the blood clots in the vessels and capillaries and improve the microcirculation.

### Bullet 3: The Herb Recipe that may Revitalize the Retina Cells

Chinese physicians and TCM practitioners may always emphasis the importance of curing the liver and kidney for glaucoma patients. That is not to let “肝火太旺，肾水不足” (The liver “fire” is too strong; the kidney “water” is insufficient), which may cause many kinds of eye disease, including glaucoma. So, the third bullet that I want to shot the target of glaucoma is a 17-herb tea. To save the words,

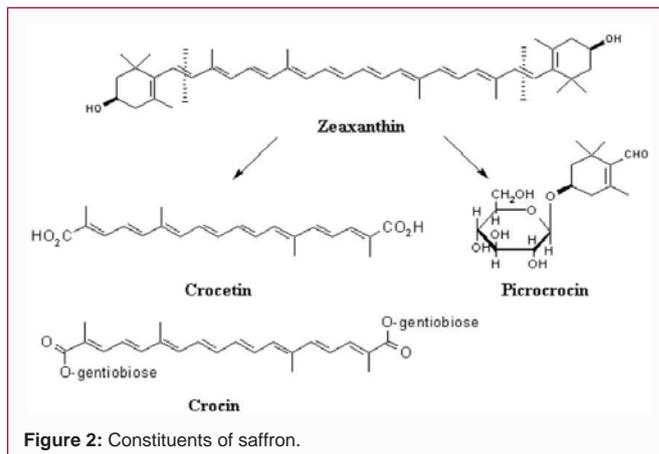


**Figure 1:** Tincture of Di Long and saffron in 5% sweetened alcohol.

I will only to mention their Chinese names and English names but not to describe their functions, to which readers may search through the web sites. Anyhow, the reason why I use them is that each of them has, generally to speak, at least one or more functions in nourish the liver, the kidney and to benefit the blood circulation. The preparation procedures are shown in Table 1.

The above 17 herbs were mixed and placed in a blender and cut them into smaller pieces or debris. Weight 10 g to 12 g of mixed debris/powder sand put it into an individual empty teabag. Prepare many similar sized herbal tea bags and stored in a plastic container or metal can with desiccator. Brew the tea bag with 300 ml to 500 ml of boiling drinking water or distilled water (not good to used spring water, because its heavy metals could react with certain components in the herbs). One bag can be brewed 2~3 infusions. That tea has yellowish-green color. Each day one can use 1~2 bags as personal preferred. None diabetes patients may add sugar or honey into the tea to get better taste. Glaucoma is not formed in one day. It is gradually formed in months or years. To rescue glaucoma patients' vision with drinking above tea it may also need to take quite long time, such those 90 days as expected through above mentioned central retinal circulation model, to reveal proper result.

Some constituents of Saffron are in Figure 2 [3].



**Figure 2:** Constituents of saffron.

## Note

I am not a doctor. The above three herbal “bullets” (three ways) that I suggested are only based on my personal experience, which I want to recommend to Mr. Wu and Mrs. G to try. But, they had not been clinically verified yet. They are proposed on my understanding with common biological knowledge and using TCM experiences. I am not in a position to promise you the effectiveness or it may cause any unexpected side effects. Try them on your own risk. Pregnant women or persons allergic to some herbs should not use that herbal tea.

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