Cataracts and Orthomolecular Treatment

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Free radicals and antioxidants are becoming increasingly popular and "establishment" in medicine. Damage caused by excessive oxidation and reversal of this damage or its prevention by antioxidants may be involved in cancer, mental illness — especially schizophrenia, and other degenerative diseases. Cataracts are also a by-product of excessive oxidation. This is the price we pay for living in an atmosphere of 20 percent oxygen and having to use it as a prime source of energy. But long before free radical theories were developed, a few physicians were using one antioxidant, ascorbic acid, to prevent and treat cataract.

Dr. Irwin Stone's amazing book, *The Healing Factor: Vitamin C Against Disease,* published in 1972, contains a brief review of the connection between ascorbic acid and cataract. In 1939, workers in Argentina treated sixty patients (113 incipient cataracts) by daily injections of 50 to 100 milligrams of Vitamin C twice a day for ten days. About 90 percent of the cataracts were benefitted. That same year a Detroit physician gave patients 350 milligrams per day for four to eight weeks and found 60 percent had better vision. Improvement was noted in two weeks. He concluded, however, that ascorbic acid would not help established cataracts.

In 1952, D. T. Atkinson, an experienced ophthalmologist, gave 450 cases of incipient cataract 1 gram of ascorbic acid per day and 20,000 IU of Vitamin A. Other patients required surgery after about four years, but some after one year. From the treated group, only a small number required surgery. In some, cataract did not progress in up to eleven years.

In his discussion, Stone pointed out that the most striking change in lens developing cataract is a decrease in sulfhydryl groups. These are destroyed by over-oxidation. They are also lower in ascorbic acid. The very high levels of ascorbic acid in the eye protects the lens protein from polymerizing, i.e. from becoming opaque. Anything which decreases vitamin levels will increase the tendency to develop cataracts.

Stone was concerned that these early studies had been consistently ignored. He wrote, "While some research shows that it is possible to slow down the cataractous process, no work could be found which would indicate that the proper use of ascorbic acid has been tried to reverse the cataractous process."

This oversight is being corrected. A report in *Canadian Family Physician,* vol. 33, page 31, 1987, reviewed research under way at the University of Western Ontario. Dr. James Robertson, Dr. Allan Donner and Dr. J. Trevithick studied 175 senile cataract patients against 175 controls. The patients had undergone or were about to undergo cataract surgery. They were really surprised to find that people over age 55 who took daily supplements of Vitamin E or Vitamin C had a 44 percent and 30 percent chance, respectively, of developing senile cataracts. They also found that cataract-free patients drank five or more cups of tea per day. Tea contains tannic acid, a good source of pyrogallol, an antioxidant. Doses of Vitamin E and ascorbic acid daily were 400 LU. and 300 to 600 milligrams. This study is very important since about 15 percent of the population over age 55, especially women, will develop cataracts, and about 50 percent of all people over age 75 will have cataracts.

Other nutrients have been therapeutic for cataract. Michael Lesser (1980) in *Nutrition and Vitamin Therapy,* reports one case given Vitamin A 10,000 IU and 400 milligrams of riboflavin daily. She was developing cataracts which would soon need operation. After several months on these vitamins her sight stabilized and then improved, and the cataracts began to recede.

Richard A. Passwater (1980) in *Selenium as Food and Medicine,* further reviewed the biochemical pathology of cataracts. There is no doubt they result from excessive

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oxidation. Glutathione peroxidase increases the destruction of oxidizers; it contains selenium. Cataracts contain one-sixth the selenium content of normal lens tissue. In rats, selenium deficiency hastens development of cataracts.

I have discussed only a few of the nutrients essential in maintaining the integrity of lens tissue. It is likely many more are involved. Dr. Roger Williams has summarized it accurately when he wrote in December 1976, *(Executive Health*, Vol 13), "... there is enough evidence now to indicate that faulty metabolism or metabolism inadequate for adapting to stresses is a major factor —and evidence too, that not some panacea nutrient but rather a balanced team of nutrients has potential for preventing cataract formation and perhaps even for helping in the treatment of some existing, but not for advanced, cataracts."

But nutrient therapy (especially antioxidant vitamins such as Vitamin B-3, Vitamin C, Vitamin E, and minerals), may do more than slow down the rate of cataract formation. Some may be entirely reversed. In this report I will summarize two cases of cataracts responding to treatment in two of my patients. These two cases should stimulate others to treat their cataractous patients to determine what proportion will be resolved completely, and when are cataracts so well established surgical treatment is the only solution.

Mrs. C.W. developed some cloudiness of vision in 1984 at age 70. She had been taking 1 1/2 grams of ascorbic acid, 100 milligrams of thiamin, 250 milligrams of Pyridoxine, 1 1/2 grams of niacinamide and 800 LU. of Vitamin E daily. To this I recommended she add 25 milligrams of riboflavin and 3 capsules of cod liver oil per day. One year later her lens was clear, and by August 1987 no further evidence of cataract was evident on Optometric examination.

At no time did she take huge doses of vitamins. The addition of vitamins A and D-3 plus riboflavin was what she needed to halt and reverse the incipient cataracts developing in both eyes.

My second example, Mrs. E.S., developed polycythemia rubra vera in 1971. Her hemoglobin was 20 grams. She was treated with Myleran and continued to receive treatment with this drug now and then. By 1977 her hemoglobin was normal (14.1), but by July 1981 she was anemic. She had entered a spent phase of extensive fibrosis and was diagnosed myelofibrosis. By December 1981 her hemoglobin was 7.2. I first saw her in March 1982, at age 67. I started her on a comprehensive program but her hemoglobin continued to drop, reaching 6.2 in August 1982.

I began to make adjustments in her multi-nutrient program and her hemoglobin began to increase, reaching 9.6 grams by December 1987. I will not detail what she was using as this an example only of an improvement in cataract. I was very pleased when she told me in October 1987 that she was able once more to read with her right eye. When seen last, December 8, 1987, her vision was even better.

These two examples of cataract reversal reinforce the evidence already discussed. It does not mean every cataract can be reversed, but it does mean that many cataracts, especially if caught early, can be reversed.

Literature Cited

1. Lesser M: *Nutrition and Vitamin Therapy.* Grove Press, New York. 1980.

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