

Successful Reversal of Retinitis Pigmentosa

Merrill J. Allen, O.D., Ph.D.;¹ Raymond W. Lowry, M.S., O.D.²

Introduction

It is commonly taught that Retinitis Pigmentosa (RP) is a hereditary disease and that there is no cure. When young, the victim of RP usually has normal vision. This fact suggests that the primary cause of RP is a pathogen or a nutritional deficit and not inheritance. This idea is supported by the difficulty of doing RP research, and by our success with two patients treated with nutrients and with 200 microamperes electricity. Neither of these unrelated patients have any known relatives with retinitis pigmentosa.

That researchers have had difficulty with the genetic concept of RP is summarized as follows: "In order to pursue laboratory studies into inherited photoreceptor abnormalities, it is essential to have well defined groups of patients with a common defect. This has rarely been achieved, the only sure way to ensure it until now being the investigation of persons with linked ancestry. Inheritance of RP can be autosomal recessive, autosomal dominant or X-linked, and there is heterogeneity within the categories. In addition, spontaneous (simplex) cases occur without there being affected siblings or evidence of parental consanguinity. These may be inherited or acquired and meaningful studies will only be possible when the relationship to known diseases has been investigated."¹

The nutritional factors began to come into focus when an epidemic of cat blindness similar to RP hit Australia in 1975.² As a result we now know that a critically essential nutrient for the retina is taurine. Cats were receiving dog food which was labeled cat food and which did not contain taurine. The limited amount of taurine typical of human food can become unavail-

able if certain intestinal bacteria are present. Deficient diets as well as such a bacterial infection in members of a family can make RP seem to be inherited. Apparently these bacteria cause the kidneys to excrete taurine, so that supplementing with taurine may not provide the taurine needed by the eyes. If supplementation with taurine is not working, the specific antibiotic for treating these taurine blocking pathogens is Neomycin.³

Loss of dark adaptation is characteristic of retinitis pigmentosa. Studies have shown that dark adaptation is greatly improved by bilberries (European blue berries).

Regarding macular degeneration which is also considered to be untreatable, Newsome⁴ showed that zinc supplementation can slow but not stop vision loss. Michael and Allen's study^{5,6} used nutrients and zinc the same as Newsome did, but they also applied 200 microamperes of electricity ± 9 volts square wave, 10 cycles/sec.) to closed eyelids. Acuity improved or was stabilized for 15 out of 25 macular degeneration patients, monitored for five years. Virtually all of Newsome's subjects, placebo and supplemented groups, lost vision in his two year study, even though the supplemented subjects retained good acuity longer. Other studies have shown that the application of weak electrical currents to the eye has positive benefit in macular degeneration and other conditions.^{7,8} There seem to be no known adverse effects from using microamperage electric current on the eyes. Our use of 200 micro amperes, ± 9 volts at 10 cycles per second on moist closed eye lids, produces only a sensation of flickering light.

Nutrients (Ocuguard) can stop the progression of age related macular degeneration as shown by Richer.^{10,11} Cheraskin¹² has shown that antioxidants are especially ben-

1. Professor Emeritus, Indiana University School of Optometry, Bloomington, Indiana, 47405.

2. PO Box 7, Worthington, Minnesota, 56187.

eficial and that improved nutrition should be started earlier in life.

Retinitis Pigmentosa Study

With the above in mind two RP patients have been monitored while they took daily nutrients and received 200 microamperes of alternating ± 9 volts of square wave electricity applied to the eyelids during weekly and monthly office visits.

Patient 1: Angela came for an eye examination at age 15, after the Mayo Clinic diagnosed her as having retinitis pigmentosa and recommended that she learn Braille. Two other ophthalmologists confirmed the diagnosis and advised that she would eventually go blind. For her first examination, Angela had to be lead into the office. Her acuity was: OD. 20/40⁻², OS. 20/200 and her visual fields were less than 15° (see Figure 1, p. 43).

Angela complained about clumsiness in walking and seeing floating spots. She had to give up the high school's marching band because of her inability to stay in line. After taking nutritional supplements and electrical treatments, starting in December 1992, Angela rapidly (in about one month) became an average, young lady able to move about and behave normally. She has continued the nutrients and electrical stimulation to the present time. Now she is happily married and has two children. Her last acuity check, December 14, 1997, was: OD. 20/20⁻ and OS. 20/40⁺³. Her peripheral vision now is reasonably normal, out beyond 55 degrees by a tangent screen test. She reports reasonably good night vision, and she has a standard driver's license. She reported that her vision now is fine. Angela's examination data are summarized in Figure 1. She continues with her daily multiple vitamins plus minerals and 300 mg of bilberry, 750 mg of taurine (See Figure 2, p. 43). She had in office electrical treatments for three years. Since June 1995 she has a 200 microampere electrical stimulator at home. She uses it on her eyes about twice a day.

Patient 2: Barbara, age 37, was examined in September 1993. Records from four medical doctors diagnosed her as having RP. She had multiple, severe, visual field defects. Her ability to drive and to walk, especially at night, was impaired as was her ability to read and to continue her work with learning disabled children. Barbara's examination data are also summarized in Figure 1. Barbara now drives 75 miles for her office visits. She could not do that before. Her visual fields are greatly improved. Regarding the success of her four years of nutritional supplements and electrical stimulation, she said: "Now I have no problems at all." Since June of 1995, Barbara also has an electrical stimulator at home which she uses on her eyes about twice daily.

Conclusions

For retinitis pigmentosa we have found a significant benefit from weak electrical currents applied to the eyes, and from using daily nutritional supplements. We have made remarkable visual and psychological improvements in two "incurable" retinitis pigmentosa patients. We recommend that all retinal problem patients including those with retinitis pigmentosa be provided, as a minimum, with proper nutritional supplements and microampere electrical stimulation.

References

1. Voaden MJ: *Retinal Research*, Pergamon Press, 1991; 10: 294.
2. Hayes KC, et al: *Science*, 1975; 188: 949.
3. Bradford RW, Allen HW: *Taurine in Health and Disease*. Volume 2, No. 6, USA, Raum and Zeit, 1991; 17-23.
4. Newsome D A, Swartz M, et al: Oral Zinc in Macular Degeneration. *Arch Ophthalmol*, 1988; 106: 192-198.
5. Michael, LD, Allen MJ: Nutritional supplementation, electrical stimulation and age related macular degeneration. *J Orthomol Med*, 1993; 8: 168-171
6. Allen, MJ: Treating age related macular degeneration, Letter. *Optom Vis Sci*, 1994; 71: 293.
7. Kurtz JL: *The principles and practice of ocular*

- physical therapy for optometrists*, Am J Optom Publ. 1930.
8. Wallace L: The treatment of macular degeneration and other retinal diseases using bioelectromagnetic therapy, *J Optom Photother*, 1997; 3.
 9. Rockland Corporation, 12320 E. Skelly Drive, Tulsa, OK 74128.
 10. Richer, S: "Atrophic ARMD, a Nutrition responsive disease. Guest Editorial, *J Am Optom Assoc*, 1996; 67: 6-10.
 11. Richer, S: Multicenter ophthalmic and nutritional age-related macular degeneration study, parts 1 and 2. *J Am Optom Assoc.*, 1996; Vol. 67: 12-49.
 12. Cheraskin E: Antioxidants in health and disease. *J Am Optom Assoc*, 1996; 67: 50-57.

Figure 1. Examination data

Patient	Age	Date	Right Eye	Left Eye	Fields Both Eyes
Angela	15	12/92	+1.50 -2.00x180. 20/40 ⁻²	+1.25 -2.00x180. 20/200	Less than ±15°
Angela	20	12/97	+1.50 -2.00x180. 20/20	+1.25 -2.00x180. 20/40 ⁺³	Passed driver test
Barbara	37	09/93	+0.50 -1.00 x 78. 20/30	+0.50 -1.00 x 90. 20/30	Less than ±20°
Barbara	41	12/97	0.00 -1.00 x 78. 20/20	0.00 -1.00 x 90. 20/20	Passed driver test

Figure 2. Nutritional used: Doctor Donsbach's "C" Clear⁹

Three Tablets Contain	Amount	% US RDA
Vitamin A (Fish Liver Oil)	9,375 IU	188
Vitamin D (Fish Liver Oil)	300 IU	75
Vitamin E (d-Alpha Tocopherol)	150 IU	500
Vitamin C (Ascorbic Acid/Calcium Ascorbate)	750 mg	1,250
Thiamin (Vitamin B-1)	37.5 mg	2,500
Riboflavin (Vitamin B-2)	56 mg	3,295
Niacin	30 mg	150
Vitamin B-6 (Pyridoxine)	56 mg	2,800
Pantothenic Acid (d-calcium pantothenate)	37.5 mg	375
Calcium (Carbonate/Citrate)	188 mg	20
Magnesium (Oxide)	93.5 mg	25
Selenium (Chelated)	37.5 mcg	
Zinc (Gluconate)	28 mg	185
L-Cysteine	150 mg	
L-Arginine	112.5 mg	
Bioflavonoids	112.5 mg	
L-Glutamine	100 mg	
Glycine	75 mg	
Glutathione	15 mg	

In addition, each patient received:

Taurine	750 mg
Bilberry	350 mg