

CORRELATION OF VISUAL & NUTRITIONAL PROBLEMS IN THE GERIATRIC PATIENT

Jack H. Warkentin, Ph.D., F.C.S.O.
Glendale, California

Fundamentally every geriatric who comes to us for help is suffering basically from malnutrition. I say "Every geriatric" advisedly as it is unhappily a rare occurrence to come across a normal person, and when we do we are apt to consider him as a sort of lucky freak and not as average in his age group. The standards today for average should occasion consternation among thinking people everywhere. Deficiencies assail us from every side, the summation of which manifests itself in every type of degenerative visual problem. The alarming fact is that it is not confined to senility or even "ripe old age" but to adolescents and young adults. Right now, I can hear you saying, "but isn't America the best fed nation on earth, do we not have the best living conditions, are not our children bigger and taller with each passing generation?" Superficially the answers to all three questions would seem to be "yes." In actuality that "yes" should be a resounding "no." We long ago traded our heritage of excellent land, for profit, and we thereby are placing an over increasing burden upon our posterity. The foodless foods we eat for the most part come from worn out or at best half efficient soils. As if that were not enough, this food is further denatured and devitalized in order to keep it for an indefinite length of time. Any food which will not support life in the form of bacteria, which eventually causes spoilage, will not support human beings. The only thing you support with foodless food is the processor's bank account.

The words starvation and malnutrition are rather embarrassing to American pride. When we hear them, we picture some poor Asiatic with his soy bean curd and handful of rice. Their starvation is quantity, ours is a surfeit of substandard food. Laboratory animals die in short order on our human fare and twice as fast on foods enriched with synthetic vitamins.

As Syntonists, we are primarily concerned with the eye, but can we examine or prescribe for it without considering the whole body which nurtures it? If we do, we are no better than the physician who prescribes an aspirin for a headache. Syntonics on the "guess and hope for the best" principle is of little more service to a patient than an old fashioned "spec fitter."

Practically all diseases including ophthalmic disorders, is the result of malnutrition.

While a great deal of research is being done in the field of nutrition, it would seem that not enough is being accomplished in our field. However, I would like to present the following for your consideration. They will convince you of the urgent need for further research and study.

Imbalance of vitamin B factors produces definite vascular changes. Riboflavin deficiency always causes corneal vascularity if persistent and of long enough duration to produce a very low riboflavin concentration in the tissues. When we consider that bread and cereal grains form the largest part of the diet on the North American continent and the present sorry state of our "staff of life" is it surprising to encounter corneal vascularization in increasing numbers among our patients, both old and young?

Records of the Canadian Air Force during the recent war show the incidence of corneal vascularization among "healthy" young adults surprisingly high. Diet studies covering two month periods in which large amounts of riboflavin were given showed definitely where the fault lay;

progressive decreases in corneal vascularity was 70% and improvement and clearing of symptoms was brought about in 95%. To the present date there is no clinical condition which can cause this type of corneal vascularization except a severe deficiency of riboflavin. Clinically there are occasionally corneal breakdowns resulting from amino-acids or mineral deficiencies but it is most often the resultant factor of ariboflavinosis.

Studies in vitamin deficiency at the Elgin State Hospital of restricted riboflavin and thiamine diets showed budding of the blood vessels into the cornea with plexes formation in its periphery, in conjunction with the known effects of general circulation, nervous system and gastro-intestinal tract.

In 250 reported cases of riboflavin deficiency in the New York City Health Department in 9 months' time, 12 were definite corneal vascularization cases and all were children or young adults. All 250 were sent to the clinic because of suspected malnutrition. These studies of the New York City Health Department Clinic have shown surgeons the importance of determining dietary deficiencies before corneal graft. Riboflavin deficiency lessens the respiratory enzyme action and an injured cornea requires more oxygen than a normal cornea.

Corneal vascularization resulting from riboflavin deficiency does not happen overnight but it's incidence in the young proves how terribly deficient our food has become. What sustenance can one hope to derive from our basic unit of diet, bread, in its present bleached, devitalized, chemically raised and emulsified state? We might as well eat the wrapper. A large measure of the riboflavin was discarded in the milling and what little escaped was adulterated in the bleaching of the flour.

O.D. Richardson, M.D. reports an interesting case of vitamin C deficiency in the quarterly review of Ophthalmology. A young child developed proptosis of the right eye 5mm downwards and laterally. His blood ascorbic acid was nil. 2 oz. orange juice and 200 mg. ascorbic acid was given daily and within 3 weeks the exophthalmos disappeared.

Calcareous incrustation at the inner canthus of the eye can be cleared away by a correction in the vitamin C status. Patients showing ocular calcareous deposits will have a similar dental deposit in the form of tartar on the teeth and dentures.

Even congenital or juvenile cataract which most practitioners would consider as definitely an inherited condition for which little or nothing could be done, can show remarkable improvement on a vitamin C and G complex therapy in natural forms. Dr. Royal Lee in an address given in February of last year in San Diego, cited the case of a boy who had to drop out of school because of near blindness. After heavy and constant vitamin C and G therapy, he was able to finish school and find useful employment. Upon cessation of vitamin therapy and change of regulated diet, his cataracts showed recurrences. Resumption and adherence to the control showed regression. Should we not think along the same vein in our geriatric cataract patients and the increasing evidences of the degenerative picture in the middle aged adult?

The effective stimulus of syntonics in conjunction with this approach would produce results which will attract the attention of our own and allied professions everywhere.

It is generally known and accepted that vitamin C is one of nature's great protectors against infection – eyes need the protection an optimum daily intake can furnish them.

Many institutions for the care of the blind have inmates who were born without either one or both eyeballs. This is vitamin A deficiency in its most devastating form. In the development of the embryo the eye requires the greatest supply of A. It is not hard to predict the resultant posterity several generations hence of vitamin A starved parents. Malfunction of visual-purpura and xerophthalmia are other serious disorders resulting from vitamin A deficiency state.

The preceding have been but a few consequences of malnutrition. I will not go through the whole list of vitamins and minerals.

In bringing this paper to a conclusion let me urge you not to overlook the values to be found in butter. The advantage of butter is the stability of its factors and the amount of lecithin per pound which gets to distribute those vital factors where they are needed in the body. In many cases, all symptoms of conjunctivitis and xerophthalmia disappear with the inclusion of large amounts of butter in the diet. We all remember the story of Denmark after the first world war when as a result of exporting all butter as an economic measure, the high incidence of blindness in their children. This should be an answer to anyone who asks the comparative values of butter and vegetable fats (oleo). The vegetable fats lack almost all factors necessary to sustain life. Oleo has been dressed in an attractive package and so diligently advertised for so long as a super food, that the consumer has been thoroughly confused and misled. 40¢ a pound oleo is practically worthless nutritionally as compared to 15¢ a pound lard which none of us would consider spreading on our bread. Consumers who think they are saving money by using oleo are only saving it to pay some vision specialist for other practitioner when the results of its use begin to make themselves felt.

The puzzling subject of myopia may have some definite relation to sugar intake. Today, because it is far cheaper than sugar, much of the commercial sweetener is glucose, only one factor of the complex which we call sugar. Its continued use tends to diabetes. We are familiar with diabetic cataract and should suspect diabetes in myopic changes in adults. An interesting case was reported in the American Journal of Ophthalmology of a woman whose 20/100 a.v. was impossible to improve with any lenses. On insulin and regulated diet, improvement was noted in 3 days and further insulin and regulated diet alone showed her entirely free of opacities, in 6 weeks' time, blood-sugar returned to normal.

I hope this short contribution will arouse your interest sufficiently to at least give the subject some serious consideration.

Ref.

American Journal of Ophthalmology, August 1950

American Journal of Ophthalmology, July 1950

Quarterly Review of Ophthalmology, June 1949

Lee Foundation for Nutritional Research, Report #4.

Lithogenesis & Hypovitaminosis, W.J. McCormack, Toronto, Canada

Malnutrition & Heredity, Dr. R. Lee, Milwaukee, Wisconsin.

Studies of Vitamin deficiency, Horwitt, Liebert, Kreisler & Whittman, Elgin State Hospital, Elgin, Illinois