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PREVENTION AND CONTROL OF MYOPIA

Selig B. Kousnetz, O.D., D.O.S. F.C.S.O.

This brief resume is based on records in my files. I will try to present a condensed report of nearly 25 years, delving into the causes of Myopia.

(1) To investigate the possibilities of removing Myopic lens corrections in some instances.

(2) To control the tendency of the myopia to increase, where such tendencies are indicated.

(3) The possibilities of preventing myopia when its approach could be recognized.

The cause of myopia has baffled investigators for centuries, the literature on this subject indicates considerable diversity of thought, or trends of thought at different periods on this subject.

By the time I started practicing Optometry, there were a good many practitioners who would not accept the long and short eyeball theory as the cause of Myopia or Hyperopia, except in very high errors occurring at birth.

I have in my investigations, been mainly concerned with moderate or low errors, mostly -3.00 diopters or less.

In 1934, I joined the Optometric Extension Program, and with adopting the Visual Analysis Technique, I became convinced that myopia is mainly a biologic tendency to reduce the hyperopic reserve. Myopia is a result of this process.

In 1939, Dr. Avery De H. Prangen had published his article, "The Myopic Problem", in the Archives of Ophthalmology in the December issue, stating the mechanical theory of (elongated globe) myopia is untenable, substantiating further the teaching of the O.E.P. and my earlier convictions, that children who have low hyperopia should be watched; that an adequate hyperopic reserve in young persons is necessary as a protection against the development of myopia.

Shortly before joining the O.E.P., I purchased my first Syntonizer, and began using it immediately, referring continually to the manual which came with the instrument. In 1933, having taken my first basic from Dr. Spitler, I began using the Syntonizer in all visual problems.

In 1937, Dr. Ray Morse Peckman, at that time, director of Optometric Research Institute in his clinical report number one, wrote on Correction of Myopia. I quote a paragraph from this report: The value of orthoptic exercises resides in their establishing balanced tonicity and balanced reciprocal innervations among all ocular muscles".

This, I have tried to accomplish with the Syntonizer and augmented with simple visual training to bring about a balanced visual reflex pattern between positive and negative convergence.

The following tables are given in round numbers and are approximate; however, the estimate is conservative. Total number of visual training periods – in over twenty years:

For myopia all ages (90%) children)	16,000
Total number of patients involved	800
Average raining periods per patient	20
Average number of visual training periods Before improvement was demonstrated	8

In most instances this improvement is the most ultimately attainable. Percentage responding favorable to visual training for myopia is 95%. The degree of response and amount of measurable improvement varies considerably.

Old Rx worn before training:

Rx - 50	OU	or less	chances	for	20/20 vis.	95%
" - 100	"	"	"	"	" "	80%
" - 150	"	"	"	"	" "	60%
" - 200	"	"	"	"	20/30 "	50%
" - 250	"	"	"	"	20/50 "	50%
" - 300	"	"	"	"	20/60 "	50%

The measurable improvement when thus obtained, I am inclined to believe, is attributable to:

A. To over correction in minus, usually associated with high Exophoria.
B. Myopia of Pseudo Origin.
C. Fully corrected occupational Myopia.

During the same period, but mostly in the early years of my investigation, I prescribed approximately 400 pairs of bifocals for control of Myopia, with the following results:

Some improvement	25%
Worse or less of vision in about	25%
No change in about	50%

The prescribing plus for prevention of myopia was the natural sequel to prescribing plus for visual training, for the reduction of control of myopia. While I did not keep separate records, I am estimating very conservatively. I prescribed for at least 500 patients with good results, for as long as the patient cooperated by wearing the Rx s directed.

During the past five years, I have made it a routine practice to stress the importance of handling each prevention case as a project, and insist on seeing patient at frequent intervals during the observation period, and this is continued all through the eighth grade or until they are about 14 years of age. There are a good many instances where it is advisable to continue the observation through High School and sometimes through College. It is not an easy matter to convince parents or guardians, the importance of what we are doing, and to the young patient, the need of continuing to wear glasses which do not improve vision, and in some instances may even blur his vision slightly. There is little difficulty of convincing a myopic parent, especially when another child has already become myopic.

It is an entirely different matter when both parents enjoy good distance vision, without glasses, and child patient does not complain of anything being wrong; your visual analysis, however, indicated danger ahead; in low hyperopic reserve, and age of patient 5 to 7 years, you have a potential myope in the making. It is a lucky child whose parents are wise and trust the doctor in this matter and choose to cooperate fully.

Full cooperation is the most important item. On our list of musts, and can be the deciding factor, whether we succeed or fail, and we must never overlook an opportunity to indoctrinate patient or parents

of the nature and importance of the various steps in our procedure even when we prescribe plus lenses for myopia prevention purposes.

Each and every patient, at every training period, was syntonized, usually at the end of the period. The frequencies used, are listed herewith: See Forum

REFERENCES

Dr. Seilig B. Kousnetz Case records in my files 1930 to 1954
Dr. Skeffington O.E.P. Papers 1934 to 1952
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Dr. Avery De H Prangen (The Myoptic Problem) Archives of Ophthalmology December 1939
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3460 W. Lawrence Ave.,
Chicago 25, Illinois

Frequencies used by Kousnetz:

Alpha Omega to improve circulation to the ocular structure; also to balance the parasympathetic against the sympathetic.

I usually like to start with Alpha Omega also when I suspect emotional disturbances in Myopia with Esophoria, I have used Mu and Mu Delta, MU Theta, MU Upsilon (when redness is present) frequently /also Upsilon Omega, Pi Omega in most instances used as depressants. I have also used Delta Omega for relaxing Ciliary Spasms, also N or Delta N.