An Amblyopia That Wasn’t

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Fortunately this story has a happy ending. In the many years of its evolving, one must question the depth of the examinations performed and the objectives sought by the many practitioners who attended this patient. The family were military people and travelled extensively in Canada. Optometrists and ophthalmologists both saw the patient over the years. The practitioner consulted just prior to her visit to us was a local ophthalmologist. We cannot say that our findings were not recorded in previous consultations but, if they were, then no recommendations ensued. Somewhere along the line a practitioner, fortunately or unfortunately, used the word “amblyopia” and herein lies the nub of this human story.

The story actually begins in a supermarket where the patient purchased a copy of a women’s magazine in which there was published an article on amblyopia, including a post-script to write to the American Optometric Association in St. Louis for details. The theme of the article was that amblyopia could be treated even after childhood. The patient wrote to the A.O.A., requesting names of practitioners in her area who could help her. The A.O.A. sent to the letter to the Ontario Association in Toronto and eventually the patient sought our services.

The main purpose of the visit was to find a cure for her amblyopia so as to provide a “reserve eye” in the event the good left eye were damaged or lost from disease or injury. There was no vocational motive behind her visit nor was there any pre-employment factor.

L.C. had obtained her very first pair of glasses at age ten. Never, to her knowledge, had the eye turned. She could not recall the date on which the diagnosis of amblyopia, right eye, was given. As far back as she could recall, vision in the right eye had been poor.

We explained in some detail the nature and possible causes of amblyopia, and the procedures and the time involved in amblyopia training. She was made to understand that a cure could not be promised, that after a period of training if results were not satisfactory we would discontinue the training. The patient, satisfied with these explanations, requested that we carry on. The examination’s findings follow:

Initial Examination

age 28

Rx in use:
OD – 2.75 – 2.25 x 80 giving 20/200
OS plano – 0.75 x 150 giving 20/20

Tempered photogrey lenses:
uncorrected vision: OD 20/300 by frowning
OS 20/20

cover test — alternate cover — esophoria, more evident with OS push up: O.U. deviated at 4 inches and diplopia reported
keratometer:
OD 42.50 x 20 – 45.00 x 110
OS 43.50 x 175 – 43.75 x 85

Static Retinoscopy:
OD – 7.00 – 3.25 x 20
OS – 0.75 – 0.75 x 180

Dynamic Retinoscopy:
OD – 6.25 – 2.50 x 20
OS +1.00 – 0.75 x 180

Subjective:
OD – 7.00 – 3.25 x 20 giving 20/25

minus
OS plano – 0.75 x 150 giving 20/20

Phorias:
far ½ exo
near 8exo

Ductions far:
adduction 12/18/7
abduction 16/3

Near acuity with correction at 16 inches: 20/40 – , 20/30, 20/30 +
Distance binocularity: 4 Dot Test through the subjective gave 4 dots, lower red dot was slightly oval, both red dots (O.D.) oscillated very slightly.

From these findings it was evident that the patient was not amblyopic and that, as a youngster, she must have enjoyed good vision in both eyes otherwise it would not have been possible to obtain 20/25 – by the simple application of an ophthalmic lens over the “bad eye”.

It is difficult to understand why the patient was never told the true condition of her eyes. Surely any practitioner would know enough to use the retinoscope and this would have disclosed the marked anisometropia. It may be that the condition was discovered by someone who was afraid to “tackle” what appeared to be a tough case. Practitioners must always be alert to the possibility that a patient may be unknowingly reporting a false situation; the practitioner should do an objective examination on every patient.

To say the least, the patient was more than overjoyed and surprised at the results obtained. Treatment procedures were discussed as well as the options that were available. It was recommended that a soft toric lens was the most practical solution.

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In conditions of marked anisometropia one should always suspect a possible aniseikonia. If the myopic condition is essentially axial in origin, unilateral correction by a contact lens would tend to increase the eikonic problem. The practitioner must evaluate the potential effects of an aniseikonia on binocular comfort against the poor cosmetic appearance inherent in such spectacle lenses and the induced prism effects arising from eye movements behind lenses of significantly dissimilar powers. It was felt that in recent years this patient could not have enjoyed true binocular vision due to lack of acuity in the right eye. It seemed a lesser risk to recommend correction by a contact lens rather than by spectacles.

**Treatment procedures**

O.D.: front toric, truncated:
8.40/12.8 by 12.0/−8.50 +3.00 × 110

O.S.: no correction

a spectacle overglass for driving and for near when required was prepared in photogrey lenses:

O.D. plano

O.S. plano − .75 × 150

The patient adapted readily to her soft lens. One lens change was necessary to stabilize the cylinder axis.

**Progress visit September 1978**

distance acuity:

O.D. 20/25 with contact lens

O.S. 20/15 no correction near acuity:

O.D. 20/40−

O.S. 20/30+

O.U. 20/30− not quite a 20/25−

We have no explanation for the decrease in acuity at near other than to suspect some binocular problem such as an aniseikonia and/or low range fusional amplitudes.

Patient reported that monocularly, the image of the right eye appeared taller. The front toric could account for this. As she was asymptomatic no effort was made to correct it, particularly as eikonic spectacles were the only remedial measure. A small vertical phoria was noted but slight displacement of the contact lens could account for this. Again because of the absence of complaints or discomfort no changes were made.

**Progress visit December 1981**

Patient was seen for her routine contact lens checks and for two full examinations in May 1980 and December 1981. The pertinent findings of this last visit follow:

distance acuity:

O.D. 20/25 with contact lens

O.S. 20/20 no correction near acuity:

O.D. 20/80

O.S. 20/20

over refraction: O.D. only − .25 − .25 × 15

regular subjective refraction O.S. only + .50 − .50 × 170

phoria: far 2 exo, near 5 exo

Adduction:

far x/18/12

near ?/7/-4

Abduction: far 7/0

near ?/10/7

Again we have no explanation for the drop in near acuity while maintaining far acuity (if readers can provide a clue, the writer would appreciate hearing from them).

The patient uses her distance overglass only for driving or when the sun is too strong for comfort.