

COMMENT.

An analysis of the twenty-six cases shows: Two eyes, 20/20 vision; one eye, 20/25 vision; five eyes, 20/30 vision; six eyes, 20/40 vision; three eyes, 20/50 vision; one eye, 25/100 vision; six eyes not refracted; three too early; two should be needled; one satisfied with +10.00 sph.; one eye, no vision because of central choroiditis; one eye, no vision from retinal hemorrhage.

Seventeen of the patients obtained 20/50 or better. The patient with 20/100 had been blind in this eye for fifty years from accident, and any vision was better than what he had for so long.

I was very much disappointed in Case 2, as it was ideal from an operative standpoint. The patient's projection before operation seemed perfect. However, when she came for refraction an old central choroiditis was discovered and the vision was eccentric.

I have referred to Case 19 earlier in the paper.

I wish briefly to call attention to Case 20: This woman had chronic glaucoma of each eye with tension of 56 mm. and a rapidly deteriorating vision. The lenses were slightly opaque. I trephined both eyes December 14, 1917, and stayed the glaucomatous process. However, the lenses continued to become more and more opaque, and, November 21, 1918, I re-

moved the right one. In making the trephine operation I buttonholed the iris, leaving a round pupil. At the cataract operation the lens was removed through the intact pupil. The resulting vision is 20/30.

Patient 9 was a man of 70 who acknowledged specific infection; he was also a sufferer from paralysis agitans. At the time of operation my assistant was obliged to hold his head steady the entire time, and altho it was possible to control this, his lower jaw persisted in its agitation, and I can assure you that it is disconcerting to have a patient gnash his teeth at you all the time you are performing a delicate operation. However, the outcome was very successful. Vision is 20/20 with a +10.00 sph. with a perfectly mobile pupil.

Of the six cases on which I cannot yet give the ultimate vision, three were too recent to be refracted at the time this paper was written. Two should be needled because of opaque posterior capsule, and the remaining one is satisfied with a +10.00 sph., which was given to balance the weight of the lens prescribed for the first operated eye. All these six eyes promised to give an average result, when finally fitted, at least equal to those reported.

Finally, I wish to urge my confrères that are in my class to give this method a trial, and I can assure them that they will not be disappointed.

PARALYSIS OF ACCOMMODATION DUE TO FOCAL INFECTIONS.

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This report of three additional cases was read at the meeting of the American Ophthalmological Society, June 17, 1919. (See discussion p. 879.)

At the meeting of the Pacific Coast Oto-Ophthalmological Society in June, 1916, I presented a paper on "Chronic Infections of the Faucial Tonsils as a Causative Factor in the Production of Paralysis of the Accommodation with the Report of Two Cases."

One of these cases was treated for some time for the paralysis of accom-

modation without result, and within four days after the removal of the infected tonsils, the patient was able to read Jaeger 3, and within six days from the time of the operation the accommodation was entirely restored.

The second case was given no treatment for the ophthalmoplegia and within three days after the removal of

his infected tonsils the accommodation was entirely restored.

In the same paper another case of paralysis of accommodation due to a focal infection is referred to as having occurred in the practice of Dr. T. B. Holloway, of Philadelphia, who was kind enough to give me the notes, the latter case being due to a streptococcic catgut infection.

Since the above report was presented, a number of other similar reports have appeared in the literature, not only from chronic infection of the faucial tonsils, but from focal infection occurring elsewhere, and I wish now to present briefly a report of three additional cases.

Case 1. Miss Blank, aged twenty-one, known by the writer all her life, while on shipboard returning from a three months' sojourn in the Hawaiian Islands, complained of difficulty in reading fine print. But little attention was paid to the complaint at the time and the condition gradually progressed.

The patient's general health was excellent. There had never been any trouble with the eyes before. She had a very moderate astigmatism, using in R. + cyl. 0.25 D. axis 90°, and in L. + cyl. 0.37 D. axis 90°. The vision of each eye at the time of refraction two years before was 6/5+, both with and without lenses.

After reaching home the patient's eyes were examined and she was found to have 6/5 vision in each eye, both with and without glasses, and there was found to be an almost complete paralysis of accommodation. The eye grounds were normal.

About nine months before the patient had had an infection of the right antrum which cleared up under a few irrigations. Examination at the time of studying the eyes showed no infection of the accessory nasal sinuses, no pus in the nares, and no pus could be expressed from either of the faucial tonsils. A skiagraph of the teeth showed slight absorption at the root of one of the central incisors, a tooth which had been filled, but the filling did not extend to the bottom of the pulp cavity. This tooth was opened

and drained and within two weeks the accommodation had entirely returned.

Case 2. Miss B. M., aged about thirty, a graduate nurse holding a responsible position in a large hospital, first observed forty-eight hours before being seen by me that she could not read ordinary print with the right eye. At the time of the examination the vision was, R. 6/30, and L. 6/6. In the right eye the pupil was widely dilated and immobile. There was complete paralysis of accommodation. No gross fundus changes were visible.

In the left eye the pupil was 4 mm. in diameter, normal in reaction, and she could read Jaeger 1; p.p. 7".

An examination of the nasal accessory sinuses was negative. All of them transilluminated well, and there was no free pus in the nose. Large quantities of pus could be expressed from each faucial tonsil, the latter being cryptic in character. The blood, Wassermann and urine were negative. The patient stated that she had formerly had an attack of appendicitis, the appendix not having been removed, but an examination by her surgeon resulted in the report that there was no trouble at the present time and it was not believed that any focal infection could have arisen from this portion of the body. An examination of the teeth also was negative.

With the belief that the chronic infected tonsils might possibly be the cause of the paralysis of accommodation, they were removed under local anesthesia. Three days later the accommodation was returning, the pupil was much smaller, and the patient could read large print on a magazine cover. Inasmuch as she was in bed at the hospital, no actual measurements of the accommodation were made at this time. Five days after the operation the patient read easily Jaeger 6. One week after the operation the accommodation had entirely returned and Jaeger 1 was easily read, both pupils being equal in size and normal in reaction.

Case 3. E. B. T., female, married, aged about 26 years, was first seen January 31, 1919. She presented a

history of great difficulty in reading from time to time, altho, according to her statement, her distant vision was fairly good. There was also a history of hemicrania and some complaint of gastrointestinal disturbance.

The vision for the right eye equalled 6/6, and the patient at the time of the examination read with great difficulty Jaeger 1, p.p. 14 inches. The vision of the left eye was 6/7.5, and the patient read Jaeger 3, p.p. 15 inches, with great difficulty.

Examination of the nose and throat showed marked deflection of the nasal septum, but no pressure was present and no free pus in either naris; there were chronically diseased tonsils and a large, ragged adenoid filled with crypts.

Further tests showed that the patient had an impaired accommodation, and the immediate removal of the tonsils and adenoids was advised. It was not believed by the patient, however, or the patient's husband that the tonsils and adenoids could have anything whatever to do with the ocular condition, and the removal of the tonsils and

adenoids was therefore postponed until some months later, the eyes continuing in the same condition in the meantime. Within two weeks after the removal of the tonsils and adenoids, the patient was again examined, and the vision for R. was 6/6, the patient reading easily Jaeger 1, p.p. 9 inches, and for L. 6/5, reading Jaeger 1 easily, p.p. 7 inches. The general health was also very greatly improved.

This last case was not, at the time that she first came under observation, one of complete paralysis of accommodation, but one of paresis. It is understood that at times the accommodation had been completely paralyzed, and the fact that the condition cleared up so rapidly after the removal of the tonsils seems to place it in the same class with the other two cases.

It is believed that in each instance the paralysis or paresis of accommodation was due to a focal infection, in the first case the absorption at the root of the central incisor giving rise to the focus, and in the second and third cases the focus being found in the chronically diseased tonsils.

ACCOMMODATION IN THE LENSELESS EYE.

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This discussion of apparent accommodation after removal of the lens is based upon the case of a woman, aged 73, who had been subjected to cataract extraction. Read before the American Ophthalmological Society, June 17, 1919. (See p. 881.)

In 1895¹ the author reported two cases of accommodation in the lenseless eye, one in a young subject, the other in a man 42 years of age, both following extraction of cataract, together with a review of the literature on the subject up to that date, 1895.

Having observed another even more remarkable case of the same nature, occurring in a woman 73 years of age, I have thought it worth while to report the case before this scientific body, and to have an expression of opinion on the question, to wit, *whether the lenseless eye has accommodative power.*

Förster, Woinow, von Graefe, Silex,

Jaeger, Loring, the author, and many others maintain that accommodative power, in exceptional cases, is present in the lenseless eye; while such eminent authorities as Helmholtz, Donders, Manhardt, etc., oppose this contention, Donders² declaring that his investigations had convinced him, "that in aphakia not the slightest trace of accommodative power remains"; and further, "In old people, and with imperfect acuteness of vision, observers sometimes think they are able to prove the existence of a certain amount of range of accommodation; but in young persons, with perfectly clear pupils and great acuteness of vision,