DENDRITIC ULCER TREATED WITH CORTISONE*

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CASE REPORT

Mrs. R. O'N., aged 68, was admitted to St. Mary's Hospital, under the care of Mr. Williamson-Noble on January 12, 1951. Her complaints were pain, redness, and diminished vision in the right eye since the latter part of December, 1950.

History.—Her ophthalmologist stated that her left eye has been blind for 40 years after a traumatic retinal detachment. The right eye showed a dendritic ulcer when she first came to see him on December 27, 1950. The ulcer was carbolyzed and ung. atrop. 1 per cent. prescribed, but, the intra-ocular pressure rose and the cloudiness of the cornea became worse. The treatment was changed to gutt. eserine $\frac{1}{2}$ per cent. and pilocarpine 2 per cent. The pupil became smaller and the pain was relieved but the tension remained high.

Examination.—Right eye: visual acuity 3/60 with glasses. The lids were normal and there was no regurgitation from the lacrimal sac on expression. The general appearance of the eye was red and angry. The cornea appeared hazy on account of generalized oedema, and on staining with fluorescein revealed a central dendritic ulcer resembling the letter W with knobs at the junctions of the strokes. Striate keratitis was marked and corneal sensation was completely absent. The anterior chamber appeared deep and the pupil was moderately dilated, and inactive with posterior synechiae. The iris was difficult to see. A dull red reflex was present, but retinal details could not be discerned.

Left eye: visual acuity no perception of light. The eye was white with retinal detachment present below.

Schiötz reading on admission for the right eye were 4.5/7.5, 34 mm. Hg; 7/10, 32 mm. Hg. X rays of jaws, chest, and sinuses as well as blood investigations were negative.

Treatment.—The patient was put to bed and given oily eserine 1 per cent. to the right eye every half-hour for 2 hours, then every 2 hours for 8 hours, and finally three times daily; gutt. aureomycin $\frac{1}{2}$ per cent. every 3 hours; hot bathing to the right eye 4-hourly with continuous dry heat between; sedatives and laxatives as required.

The following day a spastic entropion of the right lower lid was noted. The pupil was now smaller, about 3 mm. in diameter. Schiötz readings were 5/7.5, 32 mm. Hg; 8/10, 28 mm. Hg. The condition of the eye remained the same and the patient was started on a 5-day course of sulphatriad, 2 g. as the initial dose followed by 1 g. three times a day. This treatment was carried out until January 17, 1951, when the aureomycin drops were discontinued, the ulcer was carbolyzed, and gutt. albucid 1 per cent. OH₃ substituted. Ascorbic acid orally 200 mg. three times daily was ordered.

After 3 days the ulcer lost its characteristic appearance and was replaced by a few linear central stains. The generalized corneal oedema persisted, the eye was still angrily injected, and the Schiötz reading was 7.5/7.5, 22 mm. Hg; 10/10, 20 mm. Hg. The tension in the right eye continued normal and on January 22, 1951, it was decided

* Received for publication April 6, 1951.

to try the effect of gutt. atrop. 1 per cent. daily, and as the tension did not rise under this treatment, it was increased to thrice daily. Short-wave diathermy to the right eye was given, at first daily and then twice daily, throughout the patient's stay in hospital. The only change noted with this treatment was the irregular dilatation of the pupil, which revealed a broad posterior synechiae between 5 and 6 o'clock.

Cortisone.—Since the eye failed to respond and this was the patient's only useful eye, it was decided to try the effect of cortisone on this stubborn condition. The first dose of 10 mg. (0.4 ml. of solution) cortisone was given sub-conjunctivally on February 1, 1951. On February 3, 1951, the corneal oedema appeared to be somewhat less. By February 5, 1951, there was a definite positive change in that the bulbar conjunctiva was whitening nasally and temporally. Cortisone was repeated on February 9, 1951, and by February 12, 1951, the eye was definitely whitening and the cornea was brighter, but striate keratitis still persisted, as well as a faint superficial staining of the cornea. The corneal sensation was doubtful, but the iris and pupil were now clearly seen. On February 14, 1951, a third injection of cortisone was given. The eye remained white, the cornea still showed striate keratitis as well as superficial staining and a few pigment spots at the back, and corneal sensation was doubtful.

On February 19, 1951, the patient was put on gutt. cortisone (1:4 dilution in a special buffers solution) hourly all through the day.

Result.—Slit-lamp examination on February 23, 1951, revealed faint punctate staining in the cornea with a few pigments spots on the back. The anterior chamber was clear, there was no aqueous flare, and pigment was scattered over the anterior lens capsule. The corneal sensation was still doubtful, visual acuity with glasses was 6/60, and tension was normal.

The patient was discharged on February 28, 1951, and asked to continue with gutt. cortisone as before, as well as gutt. atrop. 1 per cent. three times daily.

Follow-up.—On March 10, 1951, visual acuity was 6/24 with glasses, and the condition of the eye was as previously described but some corneal sensation was elicited in the lower half. A floater was seen in the vitreous.

On March 14, 1951, gutt. cortisone was discontinued and gutt. albucid 10 per cent. OH_3 substituted.

On March 27, 1951, the eye was white, and the cornea bright with very faint punctate staining, but sensation was still diminished. Visual acuity was 6/24 with glasses.

SUMMARY

A case of dendritic ulcer with iritis and a probable anterior uveitis as a complication is described. Orthodox treatment failed, but cortisone subconjunctivally and in drops produced favourable results. The first effect noted was the lessening of the corneal oedema, followed by the more definite and positive effect of the whitening of the eye. The striate keratitis was slow in disappearing. Slight corneal staining still persisted when the patient was last seen, which suggests that cortisone has no marked effect on the healing of corneal epithelium. The slow or rather doubtful return of corneal sensation is also worthy of notice.

I wish to thank Mr. F. A. Williamson-Noble for his help and for permission to publish this case.