EPISCLERAL MICROANEURYSMS*

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THIS is an unusual case showing numerous microaneurysms of the episcleral vessels surrounding the limbus. The patient also has a persistently raised tension with a further transient rise at fairly frequent intervals.

Case Report

A cabinet-maker aged 46 years was first seen on September 17, 1955, complaining of inflammation of the eyes of 2 days' duration.

Examination.—Visual acuity in the right eye 6/5, in the left 6/6 with the appropriate correction. Both eyes showed an annular distribution of episcleral microaneurysms near the limbus, especially below, with a ciliary injection (Fig. 1*a* and 1*b*). The ocular tension in the right eye was 68 mm. Hg (Schiotz) and in the left 50 mm. Hg. The cornea was clear and the fundi normal.

FIG. 1 (*a* and *b*)—Appearance in quiet phase between inflammatory attacks

He was admitted for investigation and put on 2 per cent. pilocarpine drops in both eyes. When examined a few days later, the eyes were much quieter and the tension lower.

Investigations.—The fields of vision did not show any defect. The erythrocyte sedimentation was 36 mm/hr. Blood examination revealed a simple hypochromic anaemia.

The Wasserman reaction and Kahn test were negative. The glucose tolerance curve was within normal limits.

Progress.—He was discharged with treatment for his anaemia and kept under observation as an out-patient. On December 3, 1955, his eyes were found to be somewhat congested and detailed inquiries revealed that he had suffered from attacks of inflammation of the eyes for the past 20 years. These were of a very transient nature and had

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been attributed by him to working in a sawdust-laden atmosphere. Of late, the attacks had occurred about twice a week and at the height of these episodes he could see haloes round lights. Slit-lamp examination showed no significant abnormality and he was asked to report when he next developed an acute attack.

He returned about 10 days later, and his eyes then showed circumcorneal injection and a clear cornea. The ocular tension was 60 mm. Hg in the left eye and 50 mm. Hg in the right. The slit lamp revealed very fine non-pigmented keratic precipitates and cells in the anterior chamber in both eyes (Fig. 2).

FIG. 2.—Left eye during a congestive phase

He was admitted for further investigation, and a regular record of the ocular tension was kept. It remained at between 40 and 50 mm. Hg in both eyes, and the normal diurnal variation was increased, reaching almost 8 to 10 mm. Hg. When he was put on pilocarpine after a few days observation, the tension dropped to between 30 and 40 mm. Hg. As on the previous occasion, the inflammation subsided in a few days, but the ocular tension did not drop to normal levels. Other investigations did not reveal anything of significance and though the erythrocyte sedimentation was again found to be high (40 mm./hr), no focus of infection was discovered. Gonioscopy showed an almost complete closure of the filtration angle in the right eye and similar but less marked changes in the left. As he was going into a state of chronic congestive glaucoma, a corneo-scleral trephine was done on the right eye on February 24, 1956. There was no undue bleeding at the operation, but the trephined disc was found to be adherent to the iris and was separated with difficulty. The eye healed rapidly after the operation.

Result.—The patient has been under observation for almost a month since his discharge and the ocular tension in the right eye has remained within normal limits. The patient reported one attack of inflammation in the operated eye during this period, but no rise in ocular tension was noted.

Since he left hospital, his left eye has shown some congestion, increased tension, and a transient iridocyclitis on several occasions, and it is proposed to do a filtration operation on this eye as well.

Discussion

The features of this case are episcleral microaneurysms, congestive glaucoma, and transient attacks of iridocyclitis.

The microaneurysms are probably congenital. They might possibly interfere with the drainage of aqueous and predispose to the state of congestive glaucoma. On the other hand, the association between microaneurysms and congestive glaucoma may be only incidental. The abnormally raised erythrocyte sedimentation would suggest a focus of infection which may act as a source of allergens accounting for the recurrent iridocyclitis, but no such focus has been found. The aqueous flare and cells in the anterior chamber may result from the raised tension, but this has not been a constant feature, even when the intra-ocular pressure has been at its highest levels.

This patient has had a particularly trying time in his domestic life during the last 15 years, but the congestive attacks bear no relation to his emotional upsets.

Sir Stewart Duke-Elder, who was kind enough to see this patient, believes that the microaneurysms are of congenital origin, that they may embarrass the drainage of aqueous through the normal episcleral efferent channels, and that the iridocyclitis may have been a factor precipitating an acute congestive attack. He suggested a filtration operation to relieve the tension.

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