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## A CASE OF CORNEA PLANA \*

BY

MAJOR CHARLES COCKBURN

R. A. M. C.

FROM a perusal of the literature on the condition known as cornea plana, it is evident that this malformation is one of very considerable rarity—in fact, in English Literature only two descriptive papers have been published, Swett (1924), and Barkan and Borley (1936). The latter authors, in an exhaustive article, review the literature on cornea plana and add three cases occurring in one family—mother and two daughters. They discuss the diagnosis, emphasising the distinguishing features between the condition and microphthalmia, and the possibility of glaucoma as a complication. According to these authors, “cornea plana is that condition in which the radius of curvature of the anterior portion of the eyeball, specifically the cornea, is the same as that of the eyeball.”

I believe that the case which I describe and illustrate photographically, is one of this rare malformation, and as such consider it worthy of record.

A Greek soldier, aged 28 years, reported to Eye O. P. D. of a General Hospital on Sept. 4, 1942, complaining of defective vision. An accurate history was difficult to obtain, but apparently his visual acuity had always been poor, although, significantly enough, he stated it had deteriorated since enlistment one year previously.

On examination, it was noted that both corneae were definitely smaller and considerably flatter than normal. R. cornea was clear; L. cornea had fairly dense central nebulae. In both eyes the corneo-scleral junction was ill-defined, the sclera seeming to encroach on the cornea. (Barkan and Borley speak of “indistinct corneal opacity extending from the corneo-scleral margin into the corneal tissue”). The anterior chambers were shallow.

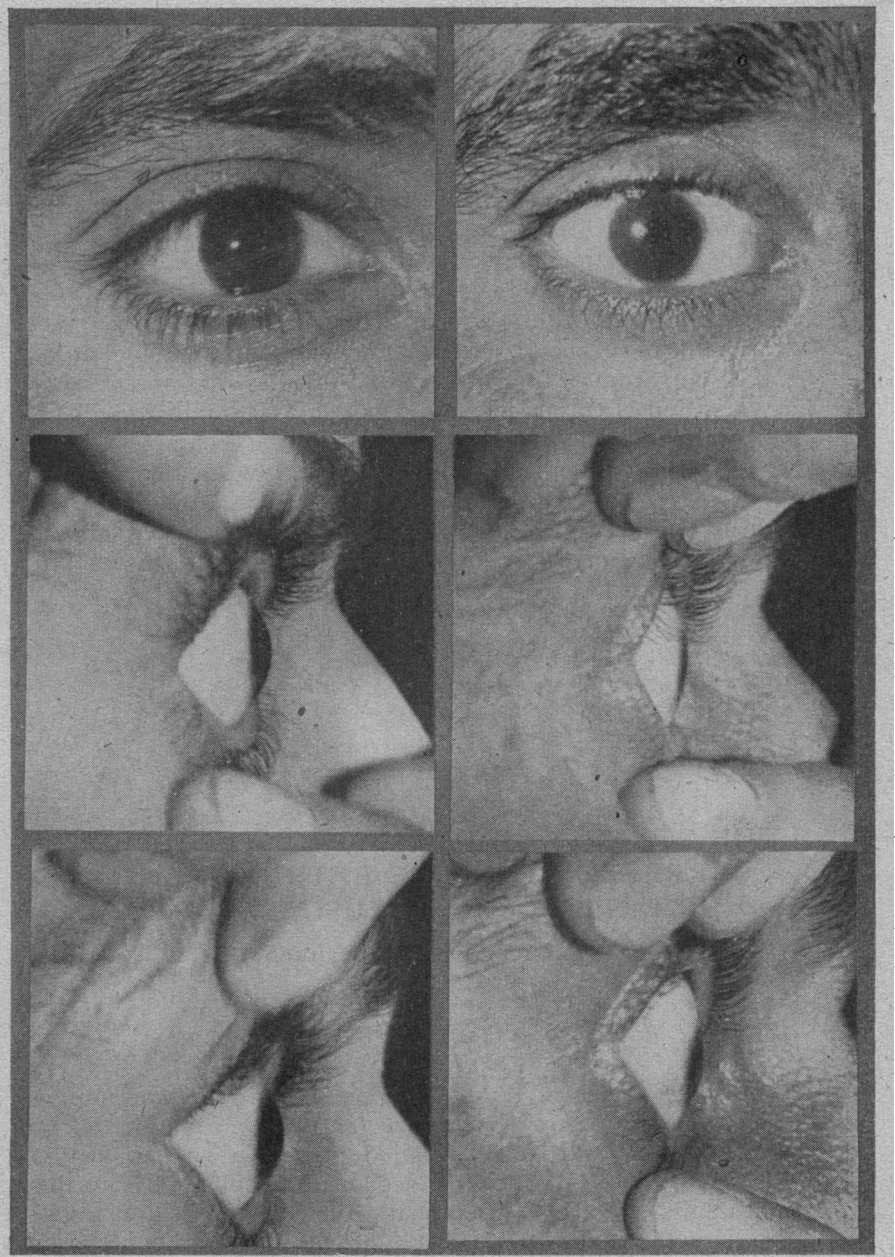
Under cycloplegic.

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NORMAL

CORNEA PLANA



$$\text{R. vision } \bar{c} \frac{+10.50 \text{ D.Sph.}}{+1.50 \text{ D.Cyl. Ax. } 60^\circ} = \frac{6}{36}$$

$$\text{L. vision } \bar{c} \frac{+12.00 \text{ D.Sph.}}{+1.00 \text{ D.Cyl. Ax. } 90^\circ} = < \frac{6}{60}$$

Lens and vitreous were clear R. and L. Fundi normal. The tension was normal in each eye.

Photographs were taken of a normal eye, to act as control, and of the abnormal in as nearly the same relative positions as possible. An attempt was made also to secure the same degree of magnification in all photographs. From a comparison of the two sets of photographs the following points relative to cornea plana may be noted:—

1. The globe is approximately of normal size.
2. The cornea is definitely smaller than normal.
3. The line of corneo-scleral junction has lost its sharp definition.
4. The curvature of the cornea is the same as that of the sclera.

The condition of cornea plana is regarded as a familial one being probably transmitted as a Mendelian recessive character (Duke-Elder). In this case, nil of importance could be elicited from the Family History.

I wish to thank Brigadier G. I. Scott, Consultant Ophthalmologist, Middle East Forces, for kind permission to publish these notes.

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## THE EFFECTS OF FARADICALLY INDUCED CURRENTS UPON THE EXTRINSIC AND INTRINSIC OCULAR MUSCULATURE\*

### A Clinical Self Experiment

BY

Major J. HORTON YOUNG, R.A.M.C.

ALTHOUGH the effects of faradism upon the extra-ocular muscles have been noted by previous observers, the information at my disposal was not sufficiently detailed for my own satisfaction. In fact, this subject is rather avoided in text-books, whether they are ophthalmic, electrical, therapeutic or physiological manuals. In the circumstances two simple clinical experiments were

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