BILATERAL PARTIAL ECTASIA OF THE NERVE HEAD WITH PERIPAPILLARY ECTASIA*

BY

IAN S. MACGREGOR

GLASGOW

GROSS cupping of the disc which is not glaucomatous, associated with a wide scleral halo, or ring, and pigmentary disturbance has been described several times in the literature. It may be unilateral or bilateral. The visual acuity may be much or little reduced and the field restricted or normal. Where it is unilateral the fellow eye may be quite normal. The cup may contain a fine film of bluish-grey tissue. The appearances have been regarded by the authors as of congenital origin.

Hancock describes such a deep cup in a girl of eleven years with vision of 6/36 improving to 6/18 with -1.5 D. cyl. The other eye was quite normal. The cup was 14.0 D. deep and showed a fine bluish film. There was a wide pigmented halo but the picture indicates that the pigmentary disturbance was not marked. The field was difficult to chart but was probably normal. Roenne describes bilateral deep excavation in the cups of a woman of thirty-nine years with no glaucomatous symptoms. There had been a difficult forceps delivery and there was facial asymmetry. No abnormality in the other members of the family was found. There was a wide halo heavily pigmented at its outer border. In one eye the cup showed a thin bluish film. He quotes Zade and Stock and von Szily (1906) who reported similar cases. Roenne's case is described in an article on congenital anomalies. The right eye was divergent and almost blind, the left eye was myopic and amblyopic. He calls it pseudo-glaucomatous cupping of the disc. Kraupa describes a similar picture in one eye where the cup was 20.0 D. deep and vision very deficient. The excavation appeared shelved and evoked the description "Terassenförmig aufgebautes opticus coloboma." Young describes the condition of gross cupping without glaucoma in a woman, aged sixty-two years, in one eye. The other eye was normal. She squinted as a child. The tension in both eyes was normal. Vision in the affected eye which was emmetropic was 6/36, and unimproved. The cup was 5.7 mm. deep. Young thought it was quite unlike the ectasia seen in microphthalmos, or myopia. He thought it was a congenital anomaly "in the sense of malformation in the evolution of the primary optic vesicle." Q. Di Marzio in his atlas describes under the heading of congenital anomaly, non-glaucomatous

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excavation of the disc with halo and pigmentary disturbance (His, Fig. 18) in a patient of thirty years with tension normal and field normal. Vision in the affected eye was 8/10. The fellow eye was normal. In another case (Fig. 17) he describes partial coloboma. One side of the disc was deeply cupped and the other side was normal. There was a scleral ring and pigmentation on the side which was excavated.

The case now to be described has partial bilateral excavation of the disc below with complete wide halo and gross pigmentary disturbance. M. McV., aged seven years, well developed and healthy second child, easy delivery. Vision, R. and L., 6/36. Right eye improved to 6/18 with +0.50 D.S. and -2.0 D.C. at 180 degrees. Left eye not improved.

Retinoscopy shadows. $\begin{array}{c} \text{---} | \text{---} +2.0 \\ \text{---} | \text{---} -2.0 \end{array}$ $\begin{array}{c} \text{---} | \text{---} +0.5 \\ \text{---} | \text{---} -5.0 \end{array}$

The margins of the disc were best seen with -6.0 D. and the floor of each cup with -18.0 D. The central fundus and periphery

RIGHT.

LEFT.

FIG. 1.

were best seen with no correcting lens in the ophthalmoscope. No macular reflex could be seen in either eye. The fields (Fig. 1) were difficult to chart but there was a definite wedge or sector defect in both. Roenne and Young found a notching of the field in the affected eye. The tension was normal. Vision was not improved by the exhibition of minus spheres higher than the retinoscopy-indicated. The anterior segments of the eyes were normal. The Wassermann reaction was negative. The mother's eyes were normal. The diagrams give some indication of the deep cup in the lower half of each disc, the wide scleral ring and the pigmentary disturbance and the gradual shelving character of the upper margin in contrast with the overhung lower border of the disc. In one cup there could be seen the fine bluish film that other authors describe (Fig. 2).

Right Eye.

Left Eye.

FIG. 2.

Discussion

The case described is one of partial ectasia of both optic discs with complete peri-papillary ectasia. It differs from the other similar cases I have been able to find in the literature, in that the discs are not completely excavated. Q. Di Marzio in his atlas shows temporal excavation of the disc in one eye. The others describe a completely excavated, deeply cupped disc in which the vessels are arranged normally. The condition is not glaucomatous and it is not the ectasia of myopia. It is regarded as a congenital anomaly of the disc. The picture is remarkably similar to the late results of traumatic avulsion of the optic nerve with preservation of the continuity of the vessels, except that glial proliferation at the nerve head is, usually quite pronounced in proven avulsion. It may indeed be so exuberant as to obscure the details of the nerve head. But histology of traumatic avulsion reveals a deep cup (Salzmann). The gross pigmentary disturbance and wide ectatic scleral ring are late features of avulsion of the nerve. The case herein described and those quoted from the literature because of their similar characteristics may be evidences of a rarer form of birth injury resulting in partial avulsion of the optic nerve, rather than a developmental failure at the disc.

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THE DIONINE EFFECT IN THE CONJUNCTIVA*

BY

ARNOLD LOEWENSTEIN (Prague)

FROM THE TENNENT INSTITUTE FOR OPHTHALMOLOGY, GLASGOW

It has been frequently observed (Augstein, Vogt, Koeppe, Loehlein and others) that some days after the occurrence of a subconjunctival haemorrhage, when the blood is undergoing absorption, vessels crossing the blood-stained area are seen to be accompanied on either side by a clear colourless zone of uniform width (Fig. 1). (Loehlein, 1928) assumes, with others, that the clear sheaths represent lymph channels and that they perform the function of removing the extravasated blood.

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