

Summary

It can be shown that many, if not most, of the so-called punctate haemorrhages characteristically seen in diabetic retinopathy are actually capillary aneurysms.

By examination of the unstained retina in bulk, as well as in vertical and flat serial sections, these bodies are seen to be compact collections of red blood corpuscles, globular in form, and with an average diameter of 50 to 60 μ , enclosed in a wall of varying thickness. With few exceptions they occur in the inner nuclear layer, in the course of the capillaries which link the deeper and more superficial capillary plexuses of the retina.

They may be a source of haemorrhage by diapedesis or by rhexis, and many of them are seen to undergo a process of thrombosis and cicatrization. They represent a stage in the vicious circle in which changes in the capillary endothelium lead to a stasis in the circulation which, in turn, causes further vascular changes, especially on the venous side of the retinal circulation.

REFERENCES

1. BALLANTYNE, A. J. and LOEWENSTEIN, A.—The Pathology of Diabetic Retinopathy. *Trans. Ophthalm. Soc. U.K.*, Vol. LXIII, p. 95, 1943.
2. BALLANTYNE, A. J.—Retinal Haemorrhage, with special reference to its sources and distribution. *Irish Jl. of Med. Sci.*, p. 551, October, 1943.

A SIMPLE METHOD OF DEMONSTRATING NYSTAGMUS IN CERTAIN MINERS*

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A LARGE experience in the assessment of cases claiming compensation under the Workmens' Compensation Act for miners' nystagmus has convinced me that in the vast majority the complaints of subjective symptoms, headaches, dizziness, loss of sleep, etc., are real and not feigned, though, of course, some allowance must be made for obsessional cases, and perhaps more recently a new form of resistance has arisen among some of the Bevin lads who have been picked by ballot from among recruits for the forces and ordered to go down the pits after a short training and testing period.

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Some of these lads have a genuine disability in the dark if they have to discard glasses worn for some years of school life. The high hypermetropes should be refused at once¹; and even the low or moderate myopes, if they have become very dependent on their glasses, may prove very difficult when they are deprived of these on going down.

It is different with the young myopic miner who has from the first worked below ground, may be before he has had glasses. He may have surprisingly good unaided vision at 5 metres, and has accustomed himself to the deprivation of his glasses in the pit. Many high myopes carry on at the coal face without glasses till 50 years of age or more. But this note is designed to fill a gap in the diagnosis of a class of case in which, with definite distress at work involving stooping, it is difficult to demonstrate the nystagmus when the man sits upright in a chair. He states that as soon as he straightens up, the oscillations cease, and even a rapid approach with the ophthalmoscope cannot catch them.

To get over this I employ a concave mirror 12 cm. diameter having a curvature of -0.75 D.

The patient stoops while sitting or kneeling and fixes his gaze on this, and when he exclaims that the movements have begun, a beam from a pocket torch is directed on the eye being examined, and the oscillations (magnified) are seen at once in the mirror by the observer.

Incidentally, this class of case in my opinion runs counter to the recommendation of the M.R.C. in its second report of the Miners' Nystagmus Committee when, on page 19, it says:—

“ We recommend that miners should be considered to have nystagmus sufficiently severely to be certified for compensation if oscillation of the eyes is constantly present even when the miner is looking at or below the horizontal level in daylight, or if it persists for five minutes in a good light with the eyes at the horizontal level after it has been induced by darkening the room and using suitable exercises.”

It is the rapid on and off character of these cases dependent on stooping that makes work involving continued stooping and swinging (*e.g.*, loading trucks in a yard) difficult or even impossible without bringing on severe dizziness, etc., and the five minutes criterion seems to me highly arbitrary.

1 *Brit. Jl. Ophthalm.*, Vol. XXVII, p. 110, 1943.