deprived of vitamin A as had been described by Findlay. He had also observed a great reduction in tears protein in such a case on one occasion. He agreed with Mr. Savin that Mr. Lumley had had excellent results with albugid 30 per cent. applied hourly. He attributed this to the strength used and to the frequent application. He had not wished to imply that albugid was useless but to draw attention to the fact that in the concentrations commonly used and infrequently applied it could have no useful action in view of its rapid dilution and the delay of several hours before it began to act effectively. He himself used 1 per cent. atropine for refraction work and thought that less than this strength was inadequate as a cycloplegic in children. He deprecated the routine use of 1 per cent. atropine in treatment when a less concentration would very often suffice. If only $\frac{1}{2}$ per cent. atropine were used as a routine the number of cases of irritation would be reduced to about one quarter. If lamellae were used only the allergic group—about 10 per cent. would remain. He drew attention to the fact that a suspected case could be assessed by the simple patch test he had described and the use of an irritating strength of mydriatic avoided.

In reply to Mr. Goldsmith he said that there was no risk of increased toxicity if oil-in-water emulsions were used, the high concentration of the drug in the restricted water phase increased its efficacy but was offset, as regards toxicity, by the small amount of total drug administered. Egg-white drops might be useful, but many patients would develop sensitisation to egg albumen. Also the concentration of lysozyme was not much higher in egg white than in normal tears, one should concentrate on the restoration of a normal titre in the tears. He said there was no case reported in which irritation had developed to a first drop of atropine and theoretically it should be impossible. He had not seen irritation develop in the routine use of atropine for refraction in children.

ABSTRACTS

MISCELLANEOUS

- (1) **Vail, Derrick and Ascher, K. W. (Cincinnati).**—**Corneal vascularisation problems.** *Amer. Jl. of Ophthalm.*, p. 1025, October, 1943.

(1) In a comprehensive paper the authors show that as long as definite pathological corneal processes are absent corneal vascularization never takes place and even very intensive engorgement does not suffice for trespassing upon the anatomically preformed limbal meshwork. Any kind of long-standing engorgement in conjunctival vessels may open up pre-existing narrower vessels or collaterals, but neovascularization of the normally clear cornea does not occur in the absence of corneal disease or involvement in disease.

A. F. MACCALLAN.

- (2) **Haycraft, G. F. (Wolverhampton).**—**Amblyopia ex anopsia.** *Middlemore Lecture*, 1943.

(2) **Haycraft** gave the Middlemore Lecture in 1943 with the above title, with special reference to recruitment for the Armed

Forces. It is a valuable contribution to an important subject. As regards visual acuity he adopted vision of 6/24 or worse as his standard of amblyopia; his orthoptic trainer suggested 6/12, but all will agree with the author that 6/12 is not bad sight and much too high a standard of amblyopia. "Of 760 men referred from National Service Medical Boards 219 came within this standard of amblyopia in one or other eye. Of these 82 showed some definite lesion to account for it." A table showing this group is of interest as showing the incidence of ocular disability in young healthy men drawn from a large manufacturing area. Myopic fundus changes headed the list with corneal opacities a close second. Traumatic cataract and retinal detachment came next. There were 6 cases of anophthalmos after injury, and only 4 cases of malingering.

His amblyopia ex anopsia cases numbered 137 and he divides them into squinters and non-squinters. Besides these, 12 cases of squint were not amblyopic by his standard, all had refractive errors but only two wore glasses. Details of these 12 cases are given in tabular form.

The non-squinting amblyopes numbered 63 and the percentage of anisometropia was very high.

The author next deals with amblyopia among children attending the Wolverhampton Eye Infirmary. Of 117 cases seen during the last few years 22 per cent. had amblyopic eyes. "One encouraging fact in comparing these children with the grown-up squinting recruits—the majority of whom gave no history of treatment—is that these untreated adults showed amblyopia in 86 per cent."

"Whoever first coined the phrase 'a lazy eye' did a great disservice to the squinting child." . . . "Who is to stimulate the lazy oculist?"

The author enters a strong plea for admitting children with amblyopia ex anopsia to hospital as soon as the squint is discovered. "One would never hesitate to admit to hospital a patient threatened with blindness from acute glaucoma or a perforating injury of the globe. It is surely wise to look upon the commencement of a squint as an emergency which, if neglected, will end in partial or even complete blindness of an eye."

R. R. J.

- (3) Rosenthal, Charles M. and Guzek, Joseph T. (Brooklyn).—Thrombosis of central retinal vein treated successfully with heparin. Report of two cases. *Arch. of Ophthalm.*, Vol. XXX, p. 232, 1943.

(3) Two cases of treatment with heparin are carefully and fully described in this paper, cases in which a most satisfactory result ensued both in the visual acuity of the affected eyes and in the return to normality of their fundi.

Both occurred at an earlier age than is usual, namely, 39 and 35, and in both general medical examination was negative except for a septic tonsil in one case, and except for shortened coagulation time, which was one minute in one case, and one-and-half minutes in the other.

In both cases treatment was not started until symptoms had been present for 5 and 3 weeks respectively; it was continued for 10 days in one case and for 5 days in the other.

These reports seem convincing and complete, and will encourage further therapy. The reviewer, on account of recent work in this country on the same subject (*Trans. Ophthalm. Soc. U.K.*, Vol. LXII, p. 123, 1942), thinks it necessary to issue a warning against undue optimism. Results without treatment are sometimes brilliant especially in relatively young persons, in whom the obstruction may not have been complete; in some of these the picture is probably a periphlebitis rather than a true thrombosis. Results in seven cases treated with heparin were disappointing in six. Attention must also be drawn to certain dangers during the administration of the drug, namely, haemorrhage and toxic reaction.

F. A. JULER.

- (4) **Rosengren, B. and Stenström, S.**—Thirty cases of retinal venous thrombosis, treated with heparin. (30 Fälle von venen Thrombose der Netzhaut, behandelt mit Heparin). *Acta Ophthalm.*, Vol. XX, 2, p. 145, 1942.

(4) **Rosengren and Stenström** report the treatment of 10 cases of central venous thrombosis and 20 cases of branch venous thrombosis of the retina with heparin. The dosage was in most cases 125 mgm. of the drug intravenously twice daily for 10 days. There was some improvement in 21 cases at first but at a later date further failure occurred in some of these.

The reviewer in studying the figures in relation to the 10 central vein cases notes that improvement occurred in only one of these; in that case the improvement was from 0.02 to 0.30 of the normal. He believes that the results of branch thrombosis without any treatment are so variable that the effect of heparin is impossible of control, in the absence of a number of cases in which a normal circulation is re-established.

F. A. JULER.