

ABSTRACTS

MISCELLANEOUS

- (1) **Sullmann, H. and Schmid, A. E. (Basle).**—The oxydo-reduction system of the retina. (Ueber die Oxydoreduktions-systeme der Netzhaut). *Ophthalmologica*, Vol. CIII, p. 151, March, 1942.

(1) This paper by **Sullman and Schmid** is a first instalment dealing with ascorbic acid and glutathione. It reports quantitative investigations on the ascorbic acid content of the retina of cattle and calves. In addition the variation of ascorbic acid content on exposure to light has been studied in living calves and rabbits and in enucleated eyes of cattle. Little variation was found and the experiments did not allow any definite conclusions to be drawn on the importance of ascorbic acid for the adaptation process in the retina. Protein free retina extracts show a positive reaction with sodium nitroprusside; the retina therefore contains SH compounds.

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- (2) **Tschetschik-Kunina, E. A. (Moscow).**—Keroplasty in ser-pignous ulcer of the cornea and allied conditions. (Keroplastik beim Ulcus Corneae serpens und anderen Geschwüren der Hornhaut). *Ophthalmologica*, Vol. CIII, p. 1, January, 1942.

(2) **Tschetschik-Kunina** reports experimental observations on rabbits in which infected corneal ulcers responded satisfactorily to penetrating keratoplasty—a procedure reported clinically by previous observers, such as Löhlein and Nizetic. In the present series 15 patients with ulcus serpens were treated in this manner. In 11 cases the eye was retained, with useful vision in five of these. A comparison is given with 19 similar cases treated by trephining, which may be regarded as a modification of the Saemisch section (on the Continent this procedure has been advocated by Sondermann; in this country it has been practised independently by T. W. Letchworth with satisfactory results). Keratoplasty appears to give better results than trephine.

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- (3) **Huysmans, J. H. B. and Fischer, F. P. (Utrecht).**—The causes of high Vitamin C concentration of the aqueous and lens. (Ueber die Ursachen der hohen Vitamin-C-Konzentration von Kammerwasser und Linse). *Ophthalmologica*, Vol. CIII, p. 21, January, 1942.

(3) **Huysmans and Fischer** find that vitamin C is almost always present in reduced form in the blood; adrenalin decreases the value

of the aqueous vitamin C by oxydation (and not by rendering the blood aqueous barrier impermeable), while atropine increases the aqueous value. In the aphakic eye, the aqueous value is nearly equal to that of the blood, it may be kept up by the vitamin C production of newly formed lens elements. In the case of cataract the aqueous content and the lens content of vitamin C is dependent on the degree of the opaqueness of the lens; it can remain normal only in nuclear cataract with functioning cortex. The lens can not only produce vitamin C but also reduce large quantities of oxidised vitamin C. It is shown that there is an external circulation of aqueous into the lens, whereby, the vitamin C is continually reduced and also a circulation within the lens with the same effect. These circulations are important sources of energy and prove that the vitamin C in the lens and aqueous functions as an energising reversible oxido-reduction system, a view formerly held but not previously shown experimentally.

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- (4) **Coppez, H. (Brussels).—Treatment of hysterical lesions by shock therapy. (Traitement des accidents hysteriques par la convulso-thérapie).** *Ophthalmologica*, Vol. CII, p. 1, July, 1941.

(4) **Coppez** reports a case of bilateral hysterical blindness cured by convulsions induced by cardiazol. The healing mechanism is not to be explained by the feelings of fear and of death set up by the injection of pentamethylentetrazol but by the release of the blocking of the intracortical association paths, as seen from the electro-encephalograms, as also by the severe disturbances of the cerebral circulation shown by the measurement of the retinal pressure.

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- (5) **Appelmans, M. and Van Horenbeeck, A. (Louvain).—The nature of uveo-parotid fever. (Sur l'origine de la fièvre uvéo-parotidienne).** *Ophthalmologica*, Vol. CII, p. 65, August, 1941.

(5) **Appelmans and Van Horenbeeck** describe the case of a girl, aged 16 years, affected with uveo-parotiditis. In addition to the characteristic clinical picture there were also present small nodules in the conjunctiva, cornea and lacrymal gland. Histologically these nodules were similar in structure to the sarcoid nodules seen in Schaumann's tissues. Injection of the blood of the patient into six guinea pigs gave positive results in one. After three weeks there were general symptoms and an inflammatory reaction in the left salivary gland. The pus of this abscess was sterile and the animal died. This pus, injected into four guinea pigs, produced a

similar abscess in two after 15 days. The animals survived. The authors conclude that the affection is organismal in origin, the organism being present in the blood at the height of the fever period.

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- (6) **Goldmann, H. (Berne).**—Method for determining the volume of the anterior chamber in the living eye: (Eine Methode zur Volumbestimmung der Vorderkammer des lebenden Menschen). *Ophthalmologica*, Vol. CII, p. 7, July, 1941.

Heim, M. (Berne).—Photographic determination of the depth and volume of the human anterior chamber. (Photographische Bestimmung der Tiefe und des Volumens der menschlichen Vorderkammer). *Ophthalmologica*, Vol. CII, p. 193, October, 1941.

(6) By using photographic apparatus attached to the slit-lamp **Goldmann** obtains photographic records of transverse sections of the anterior chamber. From these the volume can be computed mathematically by the procedure described in detail.

Heim's paper gives details of the application of **Goldmann's** technique and gives a record of 107 examinations and computations. The transverse section of the anterior chamber is considered as a rotation body and the volume calculated by a graphic integration process. The mathematical principles and the graphs for calculating the values are given. A calculation of the error of the individual photographs gave relatively small differences. After discussing variations with age and the influence of medicaments, a simplifying formula is given, whereby from two values (chamber, depth and distance of optical axis from the chamber angle) found by optical methods, the chamber volume can be obtained in a simple manner. The volume values found by photographic methods vary between 60 and 363 c.mm. Right and left eye by 9 persons showed the same volume. Average value: 194 ± 66 c.mm. Correlation coefficient with age between 20 and 70 years: 0.68 ± 0.046 . The decrease in the average values with age is not lineal, but after the 50th year there is a steep fall.

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BOOK NOTICES

The Ophthalmic Prescriber's Codex. By FRANCIS E. PRESTON, D.O.M.S. Pp. 176. London: H. K. Lewis & Co., Limited. 1943.

This little book will serve a useful purpose; there is nothing exactly like it in the literature of the speciality known to the