will be materially extended in the near future, and will be pleased to receive applications from hospitals wishing to co-operate.

Note:—The following are now available in pamphlet form, and can be obtained on application from the Secretary, Royal London Ophthalmic Hospital (Moorfields Eye Hospital), City Road, E.C.1:

V.H.O.C.1. Details of the scheme for the information of Approved Societies and their members and other persons entitled to receive treatment under the scheme, and

V.H.O.C.2. Details of the administration of the scheme for the guidance of co-operating hospitals.

ABSTRACTS

I.—NEUROLOGY


(1) Mathewson's article opens with a summary of the literature on this subject with special reference to Hudson's valuable paper (Roy. Lond. Ophthal. Hosp. Reps., 1912, Part 3, p. 317). He divides tumours of the optic nerve into three classes (1) Glioma due to overgrowth of glial tissue. (2) Meningioma, growing from the sheaths of the nerve and (3) Fibroma, growing from the fibrous tissue of the nerve sheath. Gliomata are the commonest tumours and occur usually at the age of about 13 years, though the extreme limits are 18 months and 62 years. Visual disturbance usually precedes proptosis and limitation of movement is fairly common and of early appearance. The average age for appearance of meningiomata is 35 years, though one has been seen at 10. Visual disturbance usually occurs after the proptosis, and limitation of ocular movement is less common and of late appearance. Mathewson's case occurred in a woman aged 47 years who had had proptosis for five years and failing vision for three. The tumour was removed by Krônlein's operation and was found to fill the orbit. Microscopically it was found to grow from the arachnoid, the cells being uniform in size, with vesicular nuclei and often arranged in whorls. Complete ptosis followed the operation but otherwise the patient made a good recovery. Optic nerve tumours are relatively benign, so the prospect of a recurrence is unlikely.

F. A. W-N.

(2) The last sentence of Symonds's article may be quoted first in order to show the author's main text. "It follows that in a case of retrobulbar neuritis of obscure origin disseminated sclerosis remains a possible cause, even if no further signs of this disease have developed after a period of 10 or 15 years." This fact was recently recognized by W. R. Brain (*Quart. Jl. of Med.*, 1930, No. 91, p. 343) and Symonds takes up the point in the light of his own experience. The frequency of retrobulbar neuritis as a symptom of disseminated sclerosis is a subject which he has carefully studied in private practice and he has found it advisable to search carefully for a history of symptoms of retrobulbar neuritis which the patient may have forgotten or may have failed in any way to connect with his symptoms of disseminated sclerosis. In a series of 139 cases of disseminated sclerosis a history of an attack of retrobulbar neuritis was obtained in 39, or 28 per cent. Further, in this series of cases the onset of retrobulbar neuritis preceded all other symptoms in 20 cases. The interval between this retrobulbar neuritis, regarded by the ophthalmologist as of obscure origin, and the appearance of the other signs of disseminated sclerosis varies very greatly. In the 20 cases referred to the intervals were as follow:—

Under 2 years in 10 cases.
Over 2 years but under 5 years in 5 cases.
Over 5 years in 5 cases.

Three case histories follow in which the interval was respectively 17, 10, and 18 years.

In view of the aetiological difficulties in which ophthalmologists are apt to find themselves when dealing with retrobulbar neuritis for which no cause is apparent, this short article by a neurologist is of very great interest and importance.

Ernest Thomson.


(3) Referring to the article by Symonds on the above subject in the previous number of the *Lancet*, of which an abstract appears above, Cohen relates a case in which the interval between the retrobulbar neuritis and the other symptoms of disseminated sclerosis was 22 years. He also points out that the initial symptoms other than ocular may precede the more marked development of the disease by a long period. Thus, in one of this author's cases a "useless right arm" and numbness of the left leg preceded the other symptoms by 25 years.

Ernest Thomson.
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II.-THERAPEUTICS


(1) Pregl's solution is a complicated hypo-iodite preparation which has produced good results when passed directly into the prostate in cases of gonorrhoeal infection of this organ. Cowan's paper gives an account of its use in 6 cases of gonorrhoeal conjunctivitis in adults. The technique is as follows. After thorough irrigation of the eye with boric lotion and the instillation of a drop of 1 per cent. holocaine hydrochloride, 15 minims of Pregl's solution is slowly injected into the highest point of the oedematous conjunctiva, the injection being repeated every day.
as long as gonococci are found in the secretion. The treatment is combined with the ordinary use of lotion, atropine, etc. Although the cases were severe, useful vision was lost in only one eye and this was in a man aged 73 years, whose cornea was nearly opaque on admission. The duration of the disease varied from 13 to 5 days.

F. A. W-N.


(2) Ephedrine, an alkaloid obtained from ephedra vulgaris, a plant widely distributed over Central Europe and Asia, was isolated in 1877, at Tokio, by Yamanashi and Nagai. After a period of neglect this medicament has recently been brought to the notice of practitioners and has been used in general therapy as a vaso-constrictor and anti-asthmatic. It has not been employed to any extent as a mydriatic, but in the opinion of Veil it has distinct merit for this purpose.

Merck obtained from the same plant, pseudo-ephedrine, which has the same formula, and the same chemical properties, but is dextro-rotatory, whereas the alkaloid isolated by Nagai, is laevo-rotatory.

Synthetic ephedrine (called ephetonine) has also been produced. The writer of this paper gives a detailed account of his own observations and those of other experimenters on the action of this alkaloid on the eye, and adds a list of papers up to 1929. His conclusions are:

The hydrochlorate of (natural) ephedrine in a 3 per cent. aqueous solution is a painless mydriatic much superior to adrenaline. It is preferable to euphthalmine, the action of which is slower and less constant. Ephedrine does not affect the accommodation at all, nor does it alter the ocular tonus. Possessing these properties it deserves to be employed in ocular therapeutics, to obtain mydriasis for ophthalmoscopic examination, or for improving visual acuity in the presence of axial opacity of the lens. It may also be usefully added to atropine in attempts to break down synechiae.

J. B. Lawford.


(3) In Majewski's opinion two theories concerning the pathogenesis of spontaneous detachment of the retina hold the field: that put forward by Arlt, and that upheld by Leber and
Nordenson. Each of these has numerous supporters, reference to many of whom is made by Majewski. After discussion of these hypotheses and various modifications suggested by later writers, he expresses the view that all theories based upon an inflammatory origin should be eliminated. He notes with surprise that the advocates of the different theories give little or no attention to the profound anatomical changes which are the inevitable consequences of progressive myopia, especially the increase in size of the globe. This affects particularly but not exclusively its antero-posterior measurement.

The writer deals at length with the relation (from the mechanical side) of this augmented size of the eyeball to detachment of the retina, and adduces statistics and mathematical calculations in support of his views.

In the following paragraph (literally translated) Majewski endeavours to "state with precision" the mechanical conditions which exist in an eyeball affected by progressive myopia and to explain that these conditions lead inevitably to fluidity of the vitreous, and that in certain cases the same mechanical factors may be the cause of detachment of the retina, which is incapable of unlimited expansion.

"We know that high myopia leads to notable augmentation of the eyeball, which we may assume to be approximately spherical. Now the surface of a sphere which enlarges, increases proportionately to the square of the radius, and the volume proportionately to the third power of the radius. Let us take a simple example and suppose that the radius is increased to double its length. In such a case the surface is quadrupled and the volume increased eight times. It is clear that under these conditions the membranes forming the envelope of the eye must undergo a high degree of distension, whilst the vitreous body which is insufficient to fill completely the enlarged cavity, imbibes fluid from the surrounding tissues. In this way arises synchisis of the vitreous. As to the ocular membranes, the sclera, more extensile than the others, becomes stretched and thinned, without creating thereby any serious disturbance in the functions of the eye. The choroid continues to line the enlarging fundus of the eyeball, becoming thinned and in some instances widely atrophied. On the other hand a membrane so fine and delicate as the retina cannot tolerate stretching to an indefinite degree. What happens? The retina becomes detached, separated from the wall which it is no longer capable of covering."

Majewski draws a sharp distinction between two types of myopic enlargement of the eyeball; that in which the increase is more or less uniform and an approximately spherical shape is maintained; the other (designated as "regional" or "ellipsoid") in which
the increase is chiefly in the antero-posterior diameter, and the shape of the globe becomes irregularly oblong.

In eyes which become enlarged spherically or nearly so, the distension of the retina is incomparably greater than in those which become ellipsoid. Consequently the conditions are more favourable to detachment of the retina in the first group than in the second. To determine whether detachment does occur with greater frequency in spherically distended eyeballs or in those with "regional" distension, examination and measurement of a number of eyeballs after removal or in the cadaver is essential.

J. B. Lawford.

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BOOK NOTICE


This booklet of 15 pages gives a clear and accurate account of the signs and symptoms of miners' nystagmus. The author, while not claiming that the description is exhaustive, hopes that the booklet will assist newly qualified practitioners. There is no room for a guide to the literature but the author should have mentioned that such a guide is to be found in the "First Report of the Miners' Nystagmus Committee" Special Report, No. 65 of the Medical Research Council.

The description of the condition follows the usual lines but special attention is drawn to the contraction of the fields of peripheral vision said to exist. This contraction was first described by Cridland but most ophthalmic surgeons do not lay any stress on this sign. The aetiology is discussed and although the author throws his weight on the side of the hypothesis of deficient illumination, he does not consider the question decided and thinks the possibility of a chronic poisoning should not be dismissed. "Fatigue of the retina forming a part of a general nervous fatigue is a predominant cause of the symptom complex which we know as 'miners' nystagmus'."

The treatment suggested is cessation from pit work and employment on the surface. The suggested treatment of sleeplessness by hyoscine should be confined to in-patients and Dr. Haycraft has had success in treating severe cases with rest in bed, hyoscine and ultra-violet rays. Outdoor treatment with ultra-violet rays was not successful.

This booklet is easier to read than the "First Report" but perhaps the more authoritative document is worth the extra sixpence that it costs.