Some authors claim that the incidence of abducens paralysis is as high as 1 per cent. of all spinal anaesthetics; others speak of it as occurring once in 250 cases. During the past decade fewer cases have been reported and the authors postulate three possible reasons: (a) improvement in technique; (b) these cases still occur but are not recognized; (c) these cases still occur, are recognized and are not reported.

The aetiology of the paralysis is still not clearly understood, but the authors believe that "the problem will be solved on the basis of a disturbance in the dynamics of the spinal fluid during spinal anaesthesia."

Each of these two patients complained of headaches from the 3rd to the 6th day; diplopia was noticed on the 5th day in one case and on the 6th in the other. Recovery was slow but apparently complete at the end of a couple of months. It would seem to be a little queer that patients with sudden diplopia of this sort do not recognise it and the only case which persists in our own recollection bearing on the point, not it is true the sequel of spinal anaesthesia, was one which was referred to the writer by the house surgeon of the Nose and Throat department for an opinion on the external rectus paralysis present. In this case the eye was blind. The patient had not noticed any double vision but was quite positive that the eye was blind, as indeed it was.

ABSTRACTS

I.—MISCELLANEOUS

- (1) **Rycroft, B. W., Major, R.A.M.C. — Night vision in the Army.** *Brit. Med. J.*, November 14, 1942.

(1) **Rycroft** presents an analytical and statistical report of night vision tests in the Army. "In any night vision test the object is to stimulate the parafoveal and peripheral areas of the fundus. The test object used is a large V mounted in five different positions on a translucent screen behind which is a small bulb run from a dry battery and controlled by rheostat and voltmeter. The lamp is at varying distances from each of the five screens, which are arranged as an irregular pentagon. The apparatus is rotatable so as to bring one screen at a time in front of the examinee."

Preliminary details as to age, existence of any eye trouble and the wearing of glasses, how is the sight in the dark, home, whether in town or country, work in civil life and that in the Army are recorded and the soldier sits at one metre from the apparatus and is rendered

fully dark-adapted by wearing dark goggles for half-an-hour. At the end of this period the goggles are cleared of moisture (a most essential procedure) and he then writes down the position of the five V's in turn. If he sees all five his night vision is assessed as 5/5 which is a very good result; 4/5, 3/5, 2/5, and 1/5 are average, and 0/5 is poor. When any unit has been examined the results are classified in 3 main groups. Men whose night vision is above average; average night vision; and those below average.

It has been found that age has a marked effect on the results; most men over 30 years of age are slow in the rate of dark adaptation and defective in night vision. Defective day vision whether due to refraction errors, myopia, corneal nebulae and familial defects influences night vision. Intelligence plays a part; the labourer often failing because he does not grasp the significance of the test. A proportion of cases occurs in which no explanation can be given; it may be due to steamy goggles or to malingering. The complete unit report which gives the facts, the assessment and other remarks is sent to the officer commanding. Results must be viewed in their proper perspective, with a due sense of appreciation of a man's general training and efficiency. In an infantry brigade 4 regiments were examined. The over-average percentage was strikingly constant in each, round about 31 per cent. A table is also given of percentage analysis of night vision defectives in 4 regiments. The author and his colleagues are to be congratulated on a valuable piece of work which makes for increased efficiency in night operations.

R. R. J.

- (2) **Smith, F. G. W.**—Observations on intra-cranial pressure during general anaesthesia. *Brit. Jl. of Anaesthesia*, Vol. XVII, p. 85, 1941.

(2) **Smith** draws attention to the work on the relationship between intra-cranial pressure and retinal vascular pressure and on the variations in intra-cranial pressure that have been observed during anaesthesia. His own observations concern 42 patients in the third stage of general anaesthesia and ten controls. He found that in patients under general anaesthesia intra-cranial pressure was increased by 6·7 mm. Hg, the intra-ocular pressure by 5·6 mm. Hg and the retinal diastolic arterial pressure by 15·5 mm. Hg. The greatest average rise of intra-cranial pressure was in those cases which had intra-tracheal anaesthesia; these patients had nitrous oxide and oxygen chiefly and little ether; hence, despite a more free airway, they tended to conform to what is considered usual in gas anaesthesia. A case which had ethyl chloride induction and open ether showed the highest retinal diastolic arterial pressure, and one, under gas and oxygen only, the highest intra-cranial pressure. Three cases induced by pentothal sodium showed all readings

definitely lower than the average; those premedicated by opium derivatives and atropine were mainly higher. The intra-ocular pressure rose to 43 mm. Hg in two cases under nitrous oxide, oxygen and ether, and to 36 mm. Hg in one case under ethyl chloride and ether.

He concludes that intra-cranial pressure during anaesthesia may be estimated, approximately, by anaesthetists in a simple manner in cases where they consider this advisable, *i.e.*, septic, dehydrated, cerebral or renal conditions. They should observe with an electric ophthalmoscope whether spontaneous retinal venous pulsation was present, or whether light pressure on the eyeball through the lower lid by the finger was required to produce this. The tension of the eyeball should then be estimated by finger pressure or by the sight and sense impression afforded by producing a slight dimple on the eyeball with a glass rod. (Letchworth's procedure).

Where the eyeball was obviously softer than normal, this test would be of no consequence unless comparatively severe pressure was required to produce venous pulsation. The intra-cranial pressure might be considered to be within normal limits when:—

1. Spontaneous retinal venous pulsation was present.
2. Intra-ocular pressure apparently normal.
3. Gentle pressure on the eyeball would not produce a venous pulse, if this was not present already.

ARNOLD SORSBY.

- (3) **Bangerter, A. and Goldmann, H. (Berne).**—Studies on the angle of the anterior chamber in primary glaucoma. Choice of operation based on such findings. (*Kammerwinkelstudien biem primären Glaukom. Operationswahl nach dem Winkelbefund*). *Ophthalmologica*, Vol. CII, p. 321, December, 1941.

(3) Using the Goldmann contact glass for exploration of the angle of the anterior chamber, **Bangerter** and **Goldmann** report:

1. The findings in 40 patients with simple, and 39 with decompensated glaucoma. The angle was always found to be open in simple glaucoma; in 55 per cent. of the cases characteristic changes of the angle (pigmentation, entanglement) were observed. In decompensated glaucoma the angle was completely closed during an attack. After relieving pressure by means of medicaments (where this was successful) the angle was seen to open, but remained very narrow.

2. The findings after iridectomy or cyclodialysis in primary glaucoma indicate that:—

- (a) As the aim of iridectomy is the freeing of the corneo-scleral trabeculae, only basal iridectomy, which includes the iris root, achieves this. It is the operation of choice with decompensated glaucoma with obstruction of the angle during the increase of pressure.

- (b) Cyclodialysis is successful only when the angle is not too narrow. It is the operation of choice in glaucoma simplex with open angle.
- (c) With inflammatory glaucoma, in which iridectomy has not produced full normalisation of pressure, cyclodialysis at the site of the iridectomy is effective. In simple glaucoma with narrow angle, iridectomy in the coloboma region should be carried out prior to cyclodialysis in order to avoid post-operative closing.

ARNOLD SORSBY.

- (4) **Molnar, E. J. (Toledo, Ohio).—Cloves, oil of cloves and eugenol: their medico-dental history.** Dental items of interest, July-October, 1942.

(4) **Molnar's** pamphlet runs to 30 pages, and is well documented. It traces the use of cloves from the earliest times to the present day and is well worth reading by any who are interested in the history of drugs. The use of cloves in medicine began in Byzantium, probably because it was at that date the great clearing house for spices, etc., brought from the East, and partly because most of the physicians were trained in Alexandria. Cloves was used for sore and weak eyes by the early Arabic physicians, and was also recommended by Celsus for sore eyes. Avicenna's clove pill was famous in the middle ages for the treatment of foul breath. Coming from so distant a source it was naturally an expensive drug. But its chief use was in toothache as a local application, and in halitosis. By the middle of the nineteenth century the materia medica no longer listed oil of cloves as beneficial in eye cases. The author has an interesting section on the influence of spices in world history. When the abstractor was a medical student one of his teachers used to extol the use of the mist. caryoph. for three reasons: it might do good, it would do no harm and it was pleasant to take.

R.R.J.

II.—CORNEA

- (1) **Wetzel, T. O. (Lansing, Michigan).—Dendritic keratitis.** *Amer. Jl. Ophthalm.*, Vol. XXV, p. 409, 1942.

(1) **Wetzel's** paper contains a very full account of the historical facts in the recognition of dendritic keratitis as a clinical entity; its aetiology; sex, age and seasonal incidence; its clinical features, diagnosis and treatment.

It is believed that the disease is due to a filter-passing virus. The toxin operating on the nerve endings in the superficial layers of the cornea is un-identified. The primary focus is probably in

the bulbo-spinal root. The resistance of the body is lowered, in many cases by some acute pre-existing disorder of the upper respiratory passages such as influenza and coryza, the severity of which bears no relation to that of the keratitis. The degree of loss of corneal sensation varies with the tendency to recurrence and healing rate.

In the literature there is a dispute as to the presence of vesicles in the early stages of the disease. Some authors deny the existence of such. The author comments that the sex incidence is males to females 3 to 1, but under 16 years of age the sex ratio is equal, and over 16 there is a male predominance of 5 to 2. The disease seems to be more prevalent in moderately cool and wet weather. In India Wright described an increased incidence in September rising to a peak in November and December, and Kirwan in the same country noted its prevalence during the rainy season and the monsoon.

In describing the treatment of dendritic keratitis the author discusses the value of quinine ointment, 2 per cent. or as drops, 1 to 2 per cent. The effects of infra-red and ultra-violet light are unconvincing. The importance of dealing with focal sepsis is evident in some cases. Vitamins B₁ and A are mentioned as beneficial supplements to healing. Chemotherapy with sulphonamides is unconvincing at present. The author favours the local application of iodine either in alcoholic solution or as a syrup widely around the affected area of the cornea.

H. B. STALLARD.

III.—PATHOLOGY

- (1) **Guibor, G. P. (Chicago).—Adrenal neuroblastoma with orbital metastases.** *Amer. Jl. Ophthalm.*, Vol. XXV, p. 387, 1942.

(1) Guibor describes the clinical features and the post-mortem findings in a white male infant, aged 7 months, who died 4 months after the onset of a neoplasm in the left orbit. The primary growth, a neuroblastoma of the right supra-renal, was not evident during life.

Clinically the orbital neoplasm was diagnosed as a sarcoma. The blood count showed a reduction of polymorphs to 9 per cent. and a relative increase of lymphocytes to 86 per cent. in a white cell count of 12,700 which suggested chloroma to the author. Subsequent radiographic appearances showed a sun-ray opacity in the left temporal bone and the radiologist favoured haemangioma as the diagnosis.

Metastases occurred behind the peritoneum, in the mediastinum,

frontal and temporal bones, dura, tongue, orbit, palate and tonsils. The liver and right kidney which lay against the primary neoplasm were not involved, neither was the brain infiltrated from the dural deposits, nor the long bones affected.

The author comments on the rarity of this neoplasm. 291 cases have been reported in 76 years. The rapid nature of the growth and the concealment of its primary source are features of note.

H. B. STALLARD,

BOOK NOTICE

Annual Report and Statistics of the Government Ophthalmic Hospital, Madras, 1941. Government Press, Madras, 1942. Price, 8 annas.

This statistical report follows closely the lines of previous publications. The superintendent responsible is now Rao Bahadur K. Koman Nayar, whose name is familiar to our readers. A new feature is the account of work done in connexion with air raid precautions. The training school in ophthalmology has been maintained and besides training of a large number of medical students there has been a substantial post-graduate course. Training and protective measures in A.R.P. have also been undertaken. The usual tables of diseases treated and operations performed show that much work has been performed in the year in question, while the report ends with a financial statement. Among diseases we note 308 of simple xerosis with keratomalacia of which 4 were admitted to hospital for in-patient treatment. The superintendent is to be congratulated on the way in which, in spite of the difficulties of the times, the hospital has been running in full work.

CORRESPONDENCE

UNUSUAL CASES OF CONJUNCTIVITIS

To the Editors of THE BRITISH JOURNAL OF OPHTHALMOLOGY.

DEAR SIRs,—By the quotation of certain phrases from the account of four unusual cases of conjunctivitis which I submitted in the October number of the British Journal of Ophthalmology, Major R. E. Wright suggests an attempt on my part to describe a new conjunctival disease. Such was not my intention, which would have been presumptuous indeed on so small a series.