We do not wish to appear as denying the effects of eye-strain at the present time; the results are obvious in many cases; the rush and hurry of modern life must have much to do with it, but we are convinced that we may often be in error in concentrating all our attention on the eyes and the error of refraction, without paying due attention to the patient’s general health. We wish that we could meet with some account of an old monkish chronicler who suffered in the use of his eyes; we know of nothing earlier than the case of Samuel Pepys.

ABSTRACTS

I.—NEUROLOGY


(1) In a child aged 4½ years suffering from brain disease (exact diagnosis apparently not made and no post-mortem examination) Garvie noticed that the pupils, widely dilated during waking hours, were contracted, and reacted to light during sleep. In order to explain this phenomenon the author suggests that the blocking of the light reflex during waking hours was due to a congestive disturbance leading to increased pressure on the third nerve, and he quotes Halliburton as follows:—“Plethysmographic records from the arm of a sleeping man show a diminution in the volume of blood every time he is disturbed, even though the disturbance may not be sufficient to awaken him. This is interpreted as meaning a diminution of the blood in the body and a corresponding increase in the blood flow through the brain.”

Ernest Thomson.


(2) de Monchy’s case is of considerable interest in view of the unusual nature of the symptoms recorded. The tumour, as found at the post-mortem examination, consisted of two parts connected by means of connective tissue, one part lying in the situation of the epiphysis, the other part between the folds of the dura mater, where the falx cerebri and the tentorium cerebelli meet. Microscopically (a photomicrograph accompanies the plate), it resembled the tumour described by Löwenthal as a “teratoma maligna” (Ziegler’s Beiträge Pathol. Anat. 1920). The main point of
ophthalmic interest is the peculiar condition of the eyes. Professor
Zeeman described this as a "continual abrupt converging of the
eyes." The deviations resembled those of a nystagmus of medium
degree. Diplopia could be elicited but was not complained of
spontaneously. The author discusses the question of a paresis of
divergence at some length and gives some useful references to the
literature of the subject. In addition to this muscular disturbance,
the patient, a boy of 14, had Argyll Robertson pupils and some
lymphocytosis of the spinal fluid. This condition has been said by
Déjerine (Sémiologie des Affections du Système Nerveux) to be
pathognomonic of syphilis, but in de Monchy's case the reactions
of the cerebro-spinal fluid were negative and there was no evidence
of that disease.

The visual fields of both eyes were concentrically limited to a
small degree and there was a moderate amount of papillitis.

A useful bibliography accompanies the report of this interesting
case.

E. E. H.

(3) Genet, L.—Bilateral paralysis of accommodation without
affection of the pupils. (Paralysie bilatéral de l'accommoda-

(3) Until recently says Genet, it has been considered that
paralysis of accommodation apart from paralysis of the pupil is a
sign characteristic of diphtheria. But it has been found frequently
in encephalitis lethargica, and it has been observed in botulism.
It occurred in a case of cerebral tumour and may be seen in diabetes.
It is possible that the list may be extended as the result of further
observations, but, at the present time, it is so small as to be of great
service in diagnosis. The value of the symptom in diagnosis of such
diseases as diphtheria, encephalitis lethargica, botulism, etc., as
opposed to tubercle and syphilis for instance, is that it occurs in the
former group of cases suddenly and in both eyes at the same time.

ERNEST THOMSON.

4) Strebel, J. (Lucerne).—On hemianopias. (Uber Hemian-

(4) During the war Strebel investigated a large number of cases
of head injuries due either to bullet or shrapnel. Of eleven cases
of binocular hemianopia, two were left-sided with the maculae
spared, one left-sided with macula involved, two right-sided with
maculae involved and one right-sided with macula spared, the
last showing a relative scotoma of crescentic shape in the
hemianopic area: three were of quadrantic hemianopia, one of
inferior hemianopia and one of homonymous central scotoma.
Further, a larger number of cases of occipital injuries in which one
expected participation of the visual centres, were examined but found to have normal visual fields. In every instance the patients were unconscious for a considerable time after the injury. On regaining consciousness the patients found themselves completely blind, the blindness lasting only a few hours, exceptionally a few days. Gradually, often with hallucinations, the hemianopia developed. He found that: (1) Operative interference had no influence on the field of vision as regards extent and as regards involvement or otherwise of the macula. Only in one case did operation convert a central incomplete quadrantic hemianopia into a complete homonymous hemianopia. (2) In two cases there was a unilateral reduction of central vision to 1/3; in one case to mere hand movements. The others had normal central vision, including the hemianopes with vertically-running dividing line. In most instances of macular involvement the maculo-focal reflex could be made out ophthalmoscopically. (3) The sparing of the macula need not be symmetrical; it can occur asymmetrically if fatigue is avoided (Ausschaltung des ermüdungsmoment.) (4) In no case could hemianopic pupillary reaction be made out. For this test it is best to use Hess’s principle of alternate illumination. (5) By placing in front of the eyes prisms with bases pointing to the lost field one can obtain in some hemianopes a measurable improvement of the hemianopia in that the patient becomes aware of objects in the lost field. (6) The localizing value of “vision nulle” and “vision noire” has been overestimated hitherto and calls for further verification. (7) The sickle-shaped relative scotoma in the hemianopic field due to injury does not change, whereas relative scotoma due to heteronymous hemianopia caused, e.g., by chiasmal tumour, gradually changes into absolute scotoma. (8) The winking reflex and the halving test could be elicited in all cases of hemianopia, even in hemianopia inferior. (9) No localizing value can be attached to Wilbrand’s prism test. (10) The study of Veraguth’s diascleral light-stimulation phenomenon in hemianopes is very instructive but requires further elucidation. (11) As regards the question of centralization or decentralization of the macula and the rest of the retina, the cases of homonymous central scotoma, etc., accumulated in the literature lend more and more support to the theory of centralization.

Though Veraguth’s phenomenon, Wilbrand’s prism test and Hess’s principle of alternating illumination are unfamiliar, Strebel does not explain in the paper what they consist in and what they signify.

There are 30 figures in the text, some showing the position of the head injury and the others depicting the fields. The cases examined are given in detail.

D. V. Giri.
Neurology


(5) Hyslop reports an interesting series of cases manifesting this phenomenon in which lethargic encephalitis could be excluded and a state of vagotonia appeared to furnish the best explanation. In the first, the patient had been drinking two or three quarts of strong coffee a day, and the condition was associated with sleeplessness, eructation and constipation. The symptoms disappeared on his giving up the coffee. In the second, there had been occasional numbness of the finger tips, and diarrhoea, due possibly to ptomaine poisoning, before the onset of occasional diplopia. The tendon reflexes were exaggerated; the pulse could be slowed 24 beats a minute by pressure on the eye. The condition cleared up under thyroid extract gr. 1/4, luminal gr. 3/4, twice daily; and 4 ounces of sherry in warm water at night. In the third case, there were constipation, eructation and dizziness, for six months, and brief attacks of diplopia twice a week. Ocular pressure did not affect the pulse rate. The condition cleared up in a month on aloin gr. 1/10 atropin sulph. gr. 1/150, and phenolbarbitol sodium gr. 1/4, three times daily. The remaining four cases were somewhat similar. Commenting on the seven cases Hyslop notes that digestive disturbances were present in every instance. In three cases, the symptoms seemed to be related to some article of food ingested; in the other three this was not so, and in the remaining case an attack seemed to be precipitated by "nervous exhaustion." In support of the vagotonic explanation he notes the presence of the following symptoms: spastic constipation, gastric unrest and eructations, respiratory arhythmia, strongly positive oculo-cardiac reflex, hyperidrosis, vasovagal attacks, oesophagospasm and frequency of micturition. There was, moreover, an absence of prominent symptoms of other nature. The author then enumerates other causes of transitory diplopia, such as Menière's disease, multiple sclerosis, etc., and in none of his cases would any of these diagnoses apply. He suggests that "in some way, the cerebral portion of the autonomic may at times, when the entire autonomic is in a state of overactivity, influence momentarily the tonus of muscles supplied by the oculomotor nerves." The diplopia in his cases was always in the horizontal plane and was noticeable on distant vision. It was not possible to establish whether the spasm was one of accommodation involving the ciliary muscle, or of convergence, involving the internal recti, or of both. The usual accommodation spasm occurring in vagotonic states may be analogous with paroxysmal tachycardia, and the diplopia described in this paper with cardiac extra systoles.

F. A. Williamson-Noble.
Mirimanoff, A. (Geneva).—Two ocular symptoms in oxycephaly not hitherto described. (Deux symptômes oculaires non encore décrits dans l’oxycéphalie.) Rev. Gén. d’Ophthal., May, 1924.

Mirimanoff’s article is more elaborate than the title would suggest, for it has as sub-title “A critical study of this dystrophy and its ocular symptomatology.” In fact the article deals very fully with the whole subject, the particular case in which there were enophthalmos, ptosis and paralysis of convergence being a peg upon which the rest is hung. The author, after dealing with two hitherto unpublished cases, discusses the whole syndrome of pathological cranio-synostosis in considerable detail and comes to the following conclusions.

1. Deformities of the cranium due to premature synostosis are a relatively frequent cause of eye troubles, and more particularly of early optic atrophy.

2. One must always keep in mind the possibility of a basal cranio-synostosis even if the outward shape of the cranium is normal, when optic atrophy in a child comes on without any obvious cause. Radiography will often clinch the diagnosis.

3. Optic atrophy, the most constant ocular symptom in oxycephaly, is to be attributed to intracranial hypertension combined with various local causes.

4. Premature craniosynostoses form part of a much wider syndrome which also includes acrocephalosyndactylism and which constitutes a congenital dystrophy which principally concerns the osseous system, is of unknown aetiology, and is probably hereditary and familial.

A bibliography in which British and American authors are well represented, deals with the literature since 1913. Earlier authors are mentioned only in the text. There are three illustrations dealing with the author’s two cases.

Ernest Thomson.


Under the above somewhat insufficient and cryptic title Abadie refers to an article which he communicated to the Paris Ophthalmological Society in 1921 (title not given) regarding von. Graefe’s “Essential progressive atrophy of the optic nerves.” Abadie says that in this article he was able to establish the fact that such atrophy is really due to spasm of the central artery of the retina. Such special forms of atrophy, due to deficient nutrition, can be distinguished as a rule from those in which a morbid process attacks the papillary extremity of the optic nerve by the fact that in the latter case there are usually concomitant foci of chorido-retinitis.
Neurology

There is another clinical sign which Abadie has recently discovered. If ten drops of a sterilized solution containing 1 milligramme of atropin be injected into the bottom of the orbit the visual field will increase about half an hour after the injection if the atrophy is spasmodic in origin, while in any other case the effect of the injection will be nil. A most interesting observation if it can be confirmed. The result is due to the vaso-dilator action of atropin and this action may be employed as treatment. The author states that the internal administration of 15 to 20 drops of a 1 in 1,000 solution of atropin daily, after the orbital injection, has resulted in the maintenance of the improvement caused by the latter in all the cases of tabetic optic atrophy possessed of some vision which he has treated in this way. Further, for diagnostic purposes vaso-constrictors, such as pilocarpin and adrenalin, make the vision worse in cases due to vascular spasm.

Ernest Thomson.


(8) Pierron's article is mainly concerned firstly, with the fact, according to him and his master Rollet, that zona ophthalmica or as it is usually called in this country, herpes zoster ophthalmicus, is always accompanied by ocular affection, as is shown by the constant occurrence of anaesthesia of the cornea and the conjunctiva around it; and secondly, with a consideration of the various ocular complications which may occur apart from the mere anaesthesia. The author first discusses the signs and symptoms of herpes zoster and then details the ocular and other lesions which may accompany or follow it. Lesions of the conjunctiva are the most common. Often there is a simple hyperaemia only, but there may be vesicles and ulcers. There may be increased lacrimal secretion and epiphora. Lesions of the cornea come next in frequency; they may be benign or so much the reverse as to lead to loss of the eye. A rare occurrence is interstitial keratitis without ulceration. It usually disappears leaving no trace, but when deep seated may leave opacities. Ulceration of the cornea is more frequent. Vesicles become ulcers which, on healing, leave little irregularities of the surface. Secondary infection of these ulcers may take place with consequences which at the worst may lead to destruction of the eye or even to sympathetic ophthalmitis. Iris lesions are less frequent than corneal, but nevertheless are often met with. They vary from benign to severe and may accompany or follow keratitis, or may occur alone. They may be followed by irido-cyclitis and lowered tension, on the one hand, or by glaucoma on the other. Glaucoma,
however, may appear primarily in the course of herpes zoster ophthalmicus. Haemorrhage into the anterior chamber, detachment of the retina and optic neuritis are rare complications, as are also ocular and even facial paralytic symptoms which the author discusses in some detail. As one might anticipate from the author's formidable list of complications of this disease, the prognosis must be guarded. With regard to the nature of the disease, the author quotes a number of opinions, and, for himself, concludes that it originates in an irritative process of the cells of the Gasserian ganglion of a toxic and infective nature. In treating these cases the physician must always have in mind the serious nature of the ocular symptoms which may develop, and be constantly on the watch for them.

The reviewer has given the briefest abstract only of a quite interesting and instructive article.

ERNEST THOMSON.

(9) Landolt, Marc (Paris).—The chiasma and binocular vision. (Chiasma et vision binoculaire.) Arch. d'Ophtal., April, 1924.

(9) In this interesting and thoughtful paper, which is supplementary to a communication (Arch. d'Ophtal., Nov.-Dec., 1917) by the same writer published a few years ago, Landolt discusses the question of binocular vision in animals with complete crossing of the optic paths at the chiasma. He thinks that the opinion, long held, that no degree of binocular vision can be present in this class of vertebrates cannot now be accepted in view of recent investigation, and he advances arguments against such an opinion. His paper is worth reading. It is too long to translate in full and an abstract would be of little value.

J. B. LAWFORD.


(10) Letchworth reports an interesting case which occurred in a youth aged 16 years. The history was that for a month previously there had been pain in the head, insomnia and loss of vision in the left eye. The visual failure had been a gradual one and when seen by the author the sight of the right eye was found to be normal and the left eye was quite blind. The pupil reactions on the right side were normal as was the field of vision; the left pupil reacted to convergence and gave the consensual reaction to light. The fundi were normal and the ocular movements were full. There was a slight tendency to fullness of the left upper lid and a slight droop of the lid was present on this side. The boy was admitted to hospital; a skiagram showed a normal sella and the Wassermann reaction was negative. An examination of the nose showed a deviation of the septum to the left; the temperature, which had
been normal on admission, rose to 103°, a mixed growth of bacteria was obtained from a swab from the nasal mucosa and a leucocyte count gave 12,000 per c.mm. Two days later the nose was explored, the left middle turbinal was removed and the sphenoidal sinus was punctured. No pus was obtained; the left antrum was washed out with negative result. A lumbar puncture gave blood-stained fluid, cultures were sterile, no tubercle bacilli were found and the cell count was 103 per c.mm. A further lumbar puncture gave a fluid containing more cells, the temperature remained high and the boy suddenly, one day, passed an excessive amount of urine. Headache was not much complained of at first and no physical signs were found in the nervous system save the blind left eye. Gradually the pain in the head became more severe, the boy became drowsy with deviation of the head and eyes to the left, an extensor response made its appearance on the left side, and death closed the scene.

Post-mortem a mass was found surrounding the pituitary body, the chiasma and adjacent parts of both tracts and nerves; the mass extended through the left optic foramen into the orbit; on section it proved to be tuberculous. The brain substance was not involved and no tubercles were found elsewhere. Shortly before death the left frontal lobe was explored without result.

R. R. J.


(11) Greig states that recent authorities agree that migraine is increasing in frequency and accept the nervous theory of its origin. Her theory is that "in some individuals, the migrainous for example, owing to muscular weakness, either inherited or acquired, the borderland between physiological and pathological dilatation of the stomach may be a very narrow one." Acting on this theory, the following scheme was drawn up for patients suffering from migraine, the endeavour being to maintain the stomach as far as possible in its normal physiological condition. With patients who have been willing to conform to her routine the results have been most satisfactory. The scheme can be summed up in four sections; diet, medicine, posture, and exercise.

As regards diet, the following items are to be rigidly excluded: cakes, scones, biscuits, pastry, steamed puddings, trifles, sponge puddings, green vegetables, peas, beans, aerated drinks, whisky and soda, champagne, and fruit salts and hepatica. With these items excluded, a liberal diet is allowed: porridge, fish, eggs and bacon, chops, toast, bread and butter, jam, tea or coffee for breakfast; for lunch, soups, fish, all meats, potatoes, marrows, tomatoes, milk puddings, junket, custards, stewed fruits, baked apples and fresh fruit; for dinner, a similar variety to that allowed for lunch,
ice-cream and coffee being allowed; for tea, bread and butter, toast, sandwiches, tea and coffee.

As regards medicines, a mild purgative such as cascara, when required but not as a routine, together with a mixture containing acid hydrochlor. dil., m. 5 to 10, glycerin, m. 10 and water to half an ounce; this to be taken during the first two weeks of treatment thrice daily half-hour after meals, and then discontinued altogether. Posture; sleep without a pillow, the head, neck, trunk and limbs all on a level. Exercise increasing in amount in the open air, especially walking. Tonics, good food and fresh air, in order to build up the patient physically.

The author cannot say how long it may be necessary for a migrainous patient to continue this routine, but she thinks that most cases will yield to it; this will come as a shock to those who can see no further than the end of their own noses, and who see in every migraine case an uncorrected error of refraction amounting to an eighth of a dioptre of astigmatism or less.

R.R.J.

II.—DISEASES OF ORBIT


(1) Terson, in referring to several cases of orbital cellulitis with extreme signs and high pyrexia, urges the importance of carrying out vigorous treatment in order to try to avoid the necessity for incision. Various forms of treatment are enumerated, including the following:—The application of salts of silver, internally or externally, of gold or of tin; protein therapy; the injections of milk, sera, vaccines; the application of leeches, mercury inunctions, calomel and purgatives.

It is in the case of young children that the best results are usually obtained, chiefly because they are brought for treatment in the very early stages, whereas in the case of adults, there is often considerable delay.

Among adults, in numerous cases of orbital cellulitis of every sort, but chiefly of dental origin, Terson had never until recently, during a period of thirty years, had a case early enough under treatment to prevent surgical interference. He describes a case of a woman of fifty-five years of age. In this patient, with a temperature of 39.8° C. and marked signs of orbital inflammation, treatment was applied within twelve hours, and within twenty-four hours from that time, definite improvement had started. Within three days from the commencement, the patient had entirely recovered.

Humphrey Neame.
(2) Zapatero, P. — Orbital cellulitis. (Cellulitis Orbitaria.) *Arch. d'Oftal.*, p. 184, April, 1925.

(2) Reviewing a large number of cases of orbital cellulitis Zapatero comes to the following conclusions:

1. Orbital cellulitis is never primary or idiopathic; it is always secondary (a) to general pyaemic infection; (b) to "immediate" local spread (erysipelas, lacrimal infection, &c.) or; (c) to "mediate" infection (osteitis or periostitis in connection with the sinuses). The last is the commonest aetiological factor.

2. During the first days, a tenonitis may give rise to diagnostic difficulties; a periostitis or sinus empyema is more easily differentiated, although their possible coexistence should be borne in mind.

3. If the cellulitis does not show signs of resolving on the third or fourth day, diminution or loss of vision is to be feared, due to pressure of inflammatory products on the optic nerve.

4. If the cellulitis does not abate within the first two weeks, or earlier in the case of virulent infection, vision is invariably lost, and there is considerable danger of the development of intracranial complications—sinus phlebitis, meningitis, meningo-encephalitis, and cerebral abscess.

A more rapidly fatal termination is to be expected in a more virulent infection, or in a debilitated subject.

5. The treatment recommended is:

   (a) Prophylactic: Special care of an acute sinusitis, especially frontal and maxillary, as occurs for example after influenza; radical treatment of a chronic sinusitis.

   (b) General specific serum therapy suitable to the organism involved; the general raising of the powers of resistance by injections of milk or isotonic solutions of casein; and intravenous transfusion with antiseptics. (Collargol, cyanide, etc.)

   (c) Local, divided by the author into three stages:

   First—An attempt to induce resolution, in the early stage by moist or dry heat, &c.

   Second—Free incision, multiple if necessary, and good drainage (preferably at the infero-external angle of the orbit, at which point the inmost part of the cavity can be reached without endangering any important structure) and deep cauteterization with the galvano-cautery with a view to conserve vision.

   Third—As a life-saving measure, and on the threatening of intracranial trouble—enucleation of the eyeball, with exenteration of the orbit.

W. S. Duke-Elder.

(3) An orbital growth was first noted in Ring's patient at the age of two years and was removed by repeated chemical coagulation. She was not seen again until the age of 35 when the centre of the cornea was proptosed 17 mm. forward and 10 mm. downward. Ligation of the common carotid on the side of the growth and injections of gelatin into the lumbar region caused a definite recession. She was seen again five years later with increased exophthalmos and it was decided to remove the eye and the growth by an electrothermic method under general anaesthesia. The lids were freed from adhesions to the underlying purple, hypertrophied conjunctiva, and then incised vertically, the four half-lids being held away from the site of operation by stitches. The d'Arsonval current of low voltage and relatively high amperage was used, the actual electrode being a steel needle. This needle was inserted at various points round the eyeball and the tissues dehydrated in a series of narrowing circles towards the nerve, which was then cut. The needle was kept a safe distance from the orbital walls in order to preserve the orbital periosteum and to avoid injury to the accessory sinuses. It was ultimately possible to shell out the growth with a blunt dissector after incising it at the orbital apex and controlling the haemorrhage there by a final application of the current. An excellent result was obtained and sections of the tumour showed it to be a cavernous haemangioma.

F. A. Williamson-Noble.

III.—DISEASES OF RETINA


(1) A somewhat striking case of cure of myopic retinal detachment is described by Guibert. The essential facts of the case are that the patient developed, first, a detachment after a blow on one eye, and afterwards an apparently spontaneous detachment in the other eye. In spite of all the usual forms of treatment the detachment in the first eye ended in disorganization. As regards the second eye, soon after commencement of treatment the patient developed typhoid and was confined to bed for three months. He received no ocular
treatment except for some atropin at the very beginning before the onset of the general illness. When seen by Guibert six months after the onset of the detachment, during three months of which time he had been in bed, the patient was entirely cured of the detachment, V.A. 1/2 with —12D, and has remained so. As the onset of the detachment in the second eye is given by the author as 14/2/18 the cure must surely be considered a genuine one.

Ernest Thomson.


(2) Löwenstein advocates the employment of the Lagrange operation in cases where there is a danger of separation of the retina occurring.

The technique of the operation is as follows: The conjunctiva is detached all round at the equator and separated up to the limbus. An area 4 mm. in breadth is cauterized at the limbus, by means of the dull red cautery (galvano-cautery). The conjunctiva is then stitched back to its normal position by means of a continuous suture. This completes the operation.

Löwenstein discusses the relationship between separation of the retina and hypotony. He reports a case in which the patient suffered from glaucoma of both eyes, with almost total excavation of the discs. By means of treatment the pressure was brought within normal limits. Detachment of the retina, however, developed in the right eye, and this eye showed a slightly lower curve of pressure in comparison with the left (18 mm. as compared with 24 mm.). There was then a slight hypotony. In the course of eighteen months the excavation of the disc appeared to be less, while the pressure remained about 18 mm. After a period of two and a half years the detachment could not be seen owing to the formation of pigment scars.

Löwenstein believes, in accordance with the previously expressed opinion of Schnabel, that there is in cases of increased intraocular pressure, a condition adverse to the formation of detachment of the retina.

He accordingly advocates the performance of the operation of calfeutrage (stopping up the chinks) in a second myopic eye if there be hypotony, and the other eye has already been lost through the occurrence of detachment of the retina.

S. Spence Meighan.
(3) Castellano, T., and Zavalia, A. U.—Contribution to the study of spasm of the retinal and peripheral arteries. (Contribución al Estudio de los Espasmos de las Arterias Retinianas y Periféricas.) Arch. de Oftal., p. 177, April, 1925.

(3) Castellano and Zavalia report a case of some interest: A female, aged 16, apparently in excellent health, for some considerable time had suffered from transient obscurations of vision in the left eye only, which lasted from one to five minutes, cleared up instantaneously and completely, and were repeated at varying intervals of four to eight or ten days. The day before she came under observation, however, an attack similar in onset to the others had left her eye practically blind.

Examination showed: R.E. normal objectively and subjectively. L.E. vision in lower field, bare perception of light; fundus showed obliteration of the superior branch of the central retinal artery which was visible as a thin white streak, with retinal oedema of the corresponding area. The Wassermann was positive; otherwise a very exhaustive medical examination proved negative. A diagnosis of spasm of the retinal artery with probable endarterial disease of specific origin was advanced, and she was put on intensive anti-syphilitic treatment.

In a few days the artery and general retinal appearance had returned to normal, but the inferior hemianopia remained and so persisted for two years, during which time no more attacks occurred.

At the end of that time she again returned with the same transitory visual disturbance in the right eye, with the sole difference that here the upper field was affected. The authors saw her in an attack of two minutes duration; she then saw the upper field with her left eye, and the lower with her right. She was not, however, able to fuse the two halves of objects, and experienced extreme discomfort and giddiness. Examination showed the right inferior retinal artery contracted and almost invisible and the retina normal; the left eye was ophthalmoscopically normal. An inhalation of amyl nitrite produced immediate restoration of vision in the right eye.

Since then at varying intervals, similar transient attacks have occurred, with the added symptom of arterial spasm in various parts of the body, especially the right hand. These are controlled readily by the exhibition of amyl nitrite. W. S. Duke-Elder.


(1) Maggiore has examined the clinical histories of 74 cases of retinitis pigmentosa, observed over several years. Some of his conclusions are:
1. Retinitis pigmentosa is a rare disease, forming 0.05 per cent. of eye diseases in his statistics. It is more common in males than in females.

2. Consanguinity of parents was found in only 8 per cent. of the cases.

3. The disease is usually bilateral and of about the same degree in the two eyes. In one case vision was normal in one eye and much reduced in the other, and in one other case there was early retinitis pigmentosa in one eye and no apparent change in the other.

4. In most of the cases the Wassermann reaction was negative.

**ARTHUR GRIFFITH.**


(2) In a patient, aged 18 years, recurrent haemorrhage occurred in the retina and the vitreous first in the right eye, reducing the vision to perception of light, and then in the left eye reducing it to 2/3.

The description of complete clinical and laboratory examinations is given from which negative results were obtained throughout excepting in special investigations relative to the excretory power of the kidneys. The urine showed no trace of albumen or sugar. Tests carried out relative to urea, cholesterin and phenolsulphthalein showed a marked diminution in the power of elimination by the kidneys. No blood changes and no signs suggestive of tuberculosis were found.

It is suggested, therefore, that in other similar cases of intraocular haemorrhage in adolescents, minute examination may possibly show the existence of some form of renal deficiency capable of giving a more satisfactory explanation than that of tuberculosis based mainly upon the cutaneous tuberculin reaction.

**HUMPHREY NEAME.**

(6) Coppez, H. and Danis, M. (Brussels).—Objective and subjective symptoms in the early stage of senile exudative macular retinitis. (Symptomes objectifs et subjectifs de la rétinite exsudative maculaire senile, au début.) *Arch. d’Ophtal.*, January, 1925.

(3) In a former paper in the *Arch. d’Ophtal.* (abstracted in the British Journal of Ophthalmology, Vol. VII, p. 581) Coppez and Danis described cases of ocular disease to which they gave the
name of senile exudative macular retinitis. They pointed out that in the early stages the subjective symptoms are disproportionated to the objective signs, so much so that a diagnosis of retro-ocular neuritis or of lesion of the hypophysis may be made. In the present communication the authors report a case of this form of disease which they were able to examine during its development, and which occurred in a very observant patient able to delineate accurately the scotomata which are the earliest indications of the malady. The first symptom, a brown kidney-shaped scotoma was observed and drawn by the patient on January 23; visual acuity was then 0.2. The shape and size of the scotoma underwent some modification during the following week, but it was not until February 2 that definite changes were observable with the ophthalmoscope, in the macular region. By March 8 the subjective symptoms had become decidedly worse but the retinal signs were still so slight that they seemed insufficient to account for the defect. A few days later haemorrhage into the vitreous occurred and obscured the deeper parts.

The authors publish this case in order to emphasize the difficulty in diagnosis of this malady in the early stage; they give drawings of the scotomata made by the patient, and two ophthalmoscopic drawings at an interval of four weeks, in which the earliest visible changes in the retina are depicted.

J. B. Lawford.

IV.—MISCELLANEOUS


(1) In a letter to the Lancet Wilson emphasizes a statement which he made in the British Journal of Anaesthesia for October, 1923, that inflammation of the conjunctiva could occur apart from the introduction of anaesthetic liquid into the eye. Mere exposure to the air is sufficient to produce inflammation if the blinking reflex is removed. In prolonged anaesthesia, and especially in elderly patients whose eyes tend to remain open owing to loss of tone of the orbicularis, the lids should be frequently approximated, or a little warm saline put into the eye. Another cause of inflamed eyes which is not generally recognized is the presence of vomit with dissolved anaesthetic on the patient’s pillow. Immediate cleansing with warm saline is the remedy.

Ernest Thomson.
(2) **Local anaesthesia in ophthalmic work: report of Committee on.** *Jl. of Amer. Med. Assoc.*, January 10, 1925.

(2) A Committee has reported to the Section of Ophthalmology of the American Medical Association on infiltration anaesthesia. The anaesthetic of choice is recommended to be procain in one or two per cent. solution; a four per cent. solution may be used of which 2 c.c. is sufficient. The addition of epinephrin, as adrenalin is called, two drops of a 1:1,000 solution to 5 c.c. of procain solution, is not only ischaemic in effect, but prevents the absorption of the drug, thereby prolonging the anaesthesia, and lessening the toxic effects. The solution should be injected very slowly, and not less than ten minutes should elapse before beginning the operation. Procain, like novocain, is a proprietary drug dealt with by one firm.

A. F. MacCallan.

(3) **Robison, J. Mathews (Houston, Texas).—Some observations of blocking of the fifth and seventh nerves as an accessory in cataract operations.** *Arch. of Ophthal.*, November, 1924.

(3) Robison in order to determine the best technique for producing paresis by novocain selected a number of cases in which enucleation had been performed some six weeks previously. A small rubber balloon was inserted into the socket and connected with a manometer which gave an indication of the patient's power of squeezing when he was asked to close his eye forcibly. The following technique was found to give the best results. Three injections are given: (1) the needle is inserted at the supraorbital notch, and the tissues of the lid are infiltrated between the notch and the centre of the inner canthal ligament with 1 c.c. of 2 per cent. novocain; the needle is made "to follow the contour of the bone" (presumably the orbital margin), and care is taken to keep the novocain superficial to the orbital septum; (2) the needle is inserted at the infraorbital foramen and 1 c.c. of 2 per cent. novocain is infiltrated between this point and the inner canthal ligament, the point of the needle being passed anteriorly to the lacrymal sac; (3) the needle is inserted 2 cm. lateral to the external canthus and 4 c.c. of 0.5 per cent. novocain are injected along a line drawn tangent to the outer margin of the orbit with a slight curve medially and extending a little beyond the superior and inferior orbital margins. The injection is made next to the periosteum in its inferior extent, but in its superior part, care must be taken to keep superficial to the aponeurosis of the temporal muscle. The full effect of these injections is manifest in one to three minutes.

To produce paresis of the lids, the following additions are required. In the first injection 10 minims of the novocain are
injected posteriorly to the orbital septum at the supraorbital notch and again in the region of the trochlear spine.

In the second injection 10 minims of the novocain are injected into the infraorbital foramen, and 10 minims posteriorly to the orbital septum when the needle reaches the zygomatico-facial foramen, which lies half a centimetre lateral to the orbital margin on a line with its lower border. When this is done a suture may be required to keep the lids together at the end of the operation.

F. A. Williamson-Noble.


(4) Gallemaerts describes a case of left microphthalmos and right anophthalmos in a child which died at the age of three months. The father and the mother were healthy; there had been no miscarriages; the mother was born with left microphthalmos, in which the eye was very much below the normal in size. There were three children; the first was healthy, with both eyes quite normal, and nothing abnormal detected on ophthalmoscopic examination; the second child had right microphthalmos and left-sided apparent anophthalmos; the third—the case described—had apparent anophthalmos, right and left, with no trace of any rudiment of the eye on either side. Otherwise the child appeared normal. It died at the age of three months and a full post-mortem examination was carried out.

Autopsy. The optic nerves and chiasma were absent; the external geniculate bodies were not differentiated and the corpora quadrigemina were poorly developed. The left orbit contained a small mass of tissue, composed of pigmented cells enclosed in a fibrous tissue capsule. In the right orbit no trace of any such remnants was to be found. Gallemaerts reviews the literature of the subject and points out the rarity of true anophthalmos, as proved after complete microscopical examination of the contents of the orbit. He refers to certain evidence supporting the theory of a toxic origin, of this and other congenital abnormalities, in the mother. He quotes Stockard as producing numerous anophthalmic chicks by means of exposing the eggs to ether or alcohol vapour. Leplat is quoted as producing similar abnormalities and monstrosities by transferring the fertilized eggs of rana fusca and other amphibians into solutions of lithium chloride for several hours.

Gallemaerts regards it as highly probable that certain cases of microphthalmos or anophthalmos are due to syphilitic infections and refers to two other cases which he examined, in which a positive Bordet-Gangou reaction was obtained. In the case
described no such reaction was obtained, as a refusal was received from the parents.

In the first of the cases so examined, a woman had two children, each with unilateral microphthalmos. The second case, a woman whose first child had died at the age of five months with double microphthalmos; the second child was healthy, the third died at five months with convulsions and the fourth, examined at the age of two months, had left microphthalmos and right parenchymatous keratitis. Gallemaerts is, therefore, led to believe that syphilis plays an important rôle in the production of such abnormalities.

HUMPHREY NEAME.


(5) Gwathmey recognizes three stages of anaesthesia, first the introduction, second the excitement stage, and third surgical anaesthesia, which he further subdivides into light, medium, and deep. The last of these is next to the danger zone where respiratory and cardiac failure may occur. If no preliminary medication has been used, it is necessary to keep the patient in the stage of deep surgical anaesthesia for the purposes of ophthalmic surgery. With preliminary medication, however, there is no need to push the anaesthesia beyond the first zone of the surgical stage. Ether was given intravenously to a series of animals and it was found that when complete anaesthesia had been obtained, 99 c.c. more of ether solution produced respiratory failure. If preliminary medication were used, however, it required 245 c.c. to produce the same effect. The proportion of post-anaesthetic vomiting is reduced from 50 per cent. to 20 per cent. by preliminary morphia and atropin, and is still further reduced if the morfine is given in a solution of magnesium sulphate.

A satisfactory technique for inhalation anaesthesia is the following: An hour and a half before operation the patient is given 1/8 gr. morfine in 2 c.c. of 25 per cent. magnesium sulphate, this is repeated twice at 20-minute intervals the patient getting 3/8 gr. of morfine in all. Should he be in a condition of collapse, a quart of normal saline, containing 5 per cent. bicarbonate of soda and 5 per cent glucose is given by the rectum an hour before operation. The time of injection of the atropin is not mentioned. The anaesthetic consists of ethylene 70 per cent., nitrous oxide 10 per cent., and oxygen 20 per cent. This mixture is explosive so cannot be used if a cautery is employed. Ether administered by the colon is recommended for plastic work.

F. A. WILLIAMSON-NOBLE.

(6) Cosmettatos and Anagyros publish notes of this case chiefly to direct attention to the blood changes which were discovered. Several blood counts were made and showed that, subject to the subconjunctival injections, there was a great increase in the number of white blood corpuscles and at the same time a progressive increase of eosinophiles. The eosinophilia led them to a probable diagnosis of a parasitic cyst, at a time when an ophthalmoscopic diagnosis was impossible. At a later date, when the opacity of the vitreous became less dense, the cyst was discovered by ophthalmoscopic examination, and movements of the head of the parasite were detected. The cyst was subsequently removed. The authors add some information concerning the frequency of intraocular cysticercus. Up to the year 1900 records of 326 cases were published. Of this number 162 occurred in Germany, 25 in France, 13 in Great Britain, 12 in America, 12 in Russia, 17 in Poland, 36 in Austria, 6 in Hungary, 4 in Spain, 5 in Portugal, 2 in Scandinavia, 3 in Belgium, 1 in Holland, and 1 in Switzerland. These figures were collected by Kramer and published in the Graefe-Saemisch Handbook. Cosmettatos has found records of 80 cases published from 1900 to 1923, and among these are one noted by him in 1905, and the case now recorded. These are the only examples known to have occurred in Greece.

J. B. Lawford.


(7) It is not necessary to abstract Baratoux's paper as it is in the nature of an academic review of the literature of the subject, but we should like to draw the attention of our readers to the excellence of the work from this point of view. It is to be noted with pleasure that, contrary to what usually happens in the case of foreign reviews, British and American literature has by no means been neglected.

Ernest Thomson.

(8) Klionsky, G. (London)—An unusual case of displacement of one eye-ball due to a myxoma of the frontal sinus. Lancet, January 17, 1925.

(8) The case reported by Klionsky is that of a woman, aged 60 years, who complained of diplopia noticed during three months,
MISCELLANEOUS

but which had also been noticed occasionally during the preceding six months. Actual displacement of the eyeball had been noticed by the relatives only for about two weeks before admission to hospital. No pain in the eye, no headaches or vomiting, no nasal discharge. The right eye was displaced forwards, downwards and outwards and the movements were limited upwards and inwards. The negative findings with respect to causation must have been very puzzling in view of the obvious seriousness of the condition. There was no conjunctival injection; the fundus was normal; there was no pulsation of the eye; and no deformity or tenderness in the region of the orbit. There was no nasal discharge and no apparent abnormality except a slightly deflected septum. The X-ray report was negative. There was no pyrexia, the Wassermann test was negative and no primary focus of any growth could be found. A provisional diagnosis was made of a growth of some kind. An incision on the upper inner wall of the orbit having been made, the orbit was explored through the upper eyelid. A large, fairly soft swelling was met with rather far back in the orbit. The eyeball was excised. The swelling was then found to be semi-fluctuant, to occupy nearly half the orbit “and apparently extending forwards from the apex on the roof and outer wall of the orbit.” On proceeding to eviscerate the orbit, and on commencing to strip the periosteum from the roof, a quantity of thin, jelly-like mucus suddenly exuded from the swelling and it was found that the raspatory lay in a large cavity with smooth walls. This was the frontal sinus to which there was no floor. No opening into the infundibulum could be found. The contents of the cyst were evacuated and a drainage tube inserted. The author gives no note whatever of the subsequent history. As he himself says, it is unfortunate that no microscopic slide of the material could be obtained. He favours the diagnosis of myxoma in preference to that of mucocele because of the absence of inflammatory changes in the sinus and the perfect smoothness of the walls. He supposes that the absence of an opening into the nose led to the increased pressure which gradually caused erosion of the bone of the floor of the sinus, while it would also account for the absence of nasal symptoms even if the condition were, after all, inflammatory.

Ernest Thomson.

(9) Jacobs (St. Louis).—Retinal haemorrhages in the newly born. *Jl. of Amer. Med. Assoc.*, November 22, 1924.

(9) In the obstetric department of Washington University Jacobs examined the fundi of 157 infants within twenty-four hours of birth. In nineteen cases or 12 per cent. he found haemorrhages. In character these were arranged radially round the disc in eight
cases, and were striate. Larger haemorrhages of circular form and deeper ones of irregular contour were also found. Forceps was used in the delivery of eight of the nineteen cases, in two of which there were maternal contracted pelves. Anaesthesia was effected by morphine-scopolamine in eleven cases, by nitrous oxide in five cases, and by chloroform in three cases. Asphyxia was noted several times, but was always slight. In all the cases of haemorrhages the Wassermann reaction was negative. In none of the cases was there paralysis of extrinsic muscles. The vitreous was never found abnormal. In another series of cases examined after the first twenty-four hours three showed haemorrhages.

Jacobs’s paper, which was read before the Section on Ophthalmology of the American Medical Association in June, is prefaced by information derived from Ehrenfest’s book, “Birth Injuries of the Child” (Appleton & Co., New York, 1922). During the discussion Bedell (Albany, N.Y.), stated that he had examined sixty-one infants during the first twenty-four hours. In 122 eyes he found retinal haemorrhages in nine, five were small thin superficial linear extravasations along the blood-vessels; one was subhyaloid; and three were multiple extravasations round the disc. Examination showed that there was no relation between the presence of the haemorrhage, and the age of the mother, the nature of the presentation, or the sex. However, in the cases of especially difficult labour there were no haemorrhages.

A. F. MacCallan.


(10) Boulanger, having come across a rare case of bilateral familial ptosis in which the condition appeared for the first time in adult life, at first thought that such cases had not been previously recorded, since no account of them could be found in standard books. On further investigation thirteen previous references were discovered which concerned cases which appeared to be on all fours with the case seen by Boulanger. These references are given. The author in this article studies these cases in conjunction with his own case and comes to the following conclusions: (1) A form of ptosis exists which is quite distinct from various forms of acquired paralytic ptosis; (2) it is differentiated from the group of family ptosis in that its onset is late instead of congenital; (3) it is extremely rare and commences towards the fifth decade, progressing gradually in the course of years; (4) it develops independently of any affection of the nervous, muscular or general systems; (5) it is transmitted hereditarily, thus being a true family
affection "à herédité continue et à caractère dominant"; (6) no treatment is capable of preventing its appearance or of arresting its evolution. Surgical treatment is indicated when the process has reached the stage of complete ptosis.

**ERNEST THOMSON.**

---

**NOTES**

**Death**

We regret to announce the death of Dr. C. F. Harford, oculist to the London and Hertfordshire County Councils.

**Appointments**

CAPT. V. D. NIMBKAR has been appointed Honorary Ophthalmic Surgeon to the Government Royapuram Hospital, Madras.

MR. GEOFFREY B. LOWE has been appointed Honorary Ophthalmic Surgeon to the Royal East Sussex Hospital, Hastings.

MR. E. ERSKINE HENDERSON has been appointed Honorary Ophthalmic Surgeon to the Fleet and District Cottage Hospital, Fleet.

**Convention of English-Speaking Ophthalmological Societies**

As we go to press before the Convention has finished its labours we are unable in the present issue to do more than note the great success which has attended the work of its organizers. From the social point of view the arrangements have proved most satisfactory. Beginning with the stately reception by the President of the Royal College of Surgeons and concluding with the banquet at the Guildhall, graced by the presence of H.R.H. the Duke of Connaught, the Convention has enabled our guests to see London at its best. The Convention was officially opened by the Minister of Health and His Excellency the American Ambassador in felicitous and humorous speeches, followed by the presentation of the visiting delegates, the presentation to Professor Whitnall of the Nettleship Medal, and the investment of the President of the Society with the Critchett Memorial Badge. The more serious business of the Convention was opened by the President’s address on the elimination of eye disease. In the evening an attentive audience took great interest in Sir William Bragg’s most interesting account of Thomas Young’s work, illustrated by several experiments.