I.—CONGENITAL WORD-BLINDNESS


Schröck prefaced a description of three cases of congenital word-blindness in young subjects with an account of the history of the condition. He rightly assigns the description of the first cases to James Kerr (Howard Prize Essay of the Royal Statistical Society, June, 1896, and Lancet, May 19, 1900, p. 1,446), and alludes to other cases by Morgan (1896), Hinshelwood, Nettleship, Wernicke (1903), Lechner (1903), Stephenson (1904), Bruner (1905), Thomas (1905), Schapringer, Claiborne (1906), Variot and Lecompte (1906), Fisher (1915), and others. Until 1908 in Germany the condition had not received the attention it deserved.

Peters then drew attention to congenital word-blindness. In abstract, Schröck's cases are as follows:

(1) Girl, eight years, well developed physically. Good at mental arithmetic. Poor memory. Knew single letters of the alphabet, but was unable to combine them into words. She wrote badly to dictation, and after the lapse of some time was not able to read what she had written. A brother showed some signs of word-blindness, although in other respects normal.

(2) A girl, 12 years, with good memory, but slow at figures. She did not always understand what she had written.

(3) Girl, 13 years, with good family history. She was normal in all mental respects except for arithmetic and dictation.

Two further cases in children are mentioned by the author, but neither is typical.

S. S.

II.—BINOCULAR VISION

Landolt, Marc. (Paris) — Observations on binocular vision. (Considérations organologiques sur la vision binoculaire.) Arch. d’Ophtal., November-December, 1917.

Landolt begins his remarks by a review of the conditions, anatomical and physiological, which contribute to the perfected development of the visual apparatus in man, with reference especially to the function of binocular vision, and compares them with the
characteristics of the organs of vision in the lower vertebrates. He devotes special attention to the optic and orbital axes, which vary in the ascending scale from a very wide divergence, as in birds and reptiles, to an approach to parallelism in the highest vertebrates.

In the evolution of binocular vision "we find that the orbital and optic axes tend more and more towards parallelism, i.e., they tend to coincide with the direction of the rays upon which binocular vision depends."

Landolt's paper is one which cannot be dealt with satisfactorily in an abstract. His concluding remarks, however, contain a brief summary of his views.

- The evolution (of binocular vision) presents two chief stages. In the first, the strictly lateral eyes are brought to an imperfect degree of collaboration in which a small and peripheral area of binocular vision is attained. Accomplished, perhaps transiently, by movement of the eyes, this condition becomes definitely established by an alteration in the direction of the orbits.

The second stage is characterised by the acquisition of central binocular vision. This results in more defined retinal images and a more extensive binocular field.

In this second period of evolution, the direction of the orbits undergoes as much variation as the bony skeleton permits (there are some monkeys in which the orbits diverge less than in man); the remainder of the evolutionary process is accomplished by changes in the scleral envelope, either by an angular deviation of the anterior segment (as in the owl) or by a rotation of the globe, shown by the space which separates the optic papilla from the posterior pole of the eye (as in Primates).

As soon as central binocular vision has been acquired, the association of the two eyes in movement becomes consolidated; the superposing of the functional centres of the two retinae and the maintenance of this superposition leads to the correlation of the muscular apparatus, and a new function, that of convergence of the optic axes, appears, an indubitable proof of the existence of highly developed binocular vision.

J. B. Lawford.

III.—IRIDO-CYCLITIS ASSOCIATED WITH ANTITYPHOID INOCULATION

Préalat.—A case of bilateral irido-cyclitis during antityphoid inoculation. (Un cas d'iridocyclite bilatérale au cours de la vaccination antityphoïdique.) Arch. d'Ophtal., November-December, 1917.
The writer has been well-advised in publishing notes of this case. The man was sent to the Tenth Ophthalmological Centre of the French Army, labelled, “Iritis occurring three days after a second antityphoid injection; transient albuminuria followed the first injection.” An interval of two weeks separated the two injections.

When he came under observation on January 24 he had acute bilateral irido-cyclitis with severe subjective symptoms. The conditions became aggravated during the next few days, and on February 5 there were visible in each iris numerous vascular nodules, mostly situated near the peripheral border; a fine precipitate covered the lower half of the posterior surface of each cornea.

The Wassermann reaction was strongly positive and a definite history of a primary syphilitic lesion seven months previously was forthcoming. The disease rapidly subsided under active antisyphilitic treatment.

Prélat concludes his article with the following remarks:

Antityphoid inoculation in syphilitics free from disease of the anterior segment of the eye appears to be devoid of risk. If in such patients ocular lesions develop during the inoculation treatment, the latter should not be held responsible for the complication. On the other hand it is prudent, as advised by de Lapersonne, to abstain from antityphoid inoculation in syphilitic subjects who have had lesions of the uveal tract, which might be excited to recrudescence by the action of the vaccine.

In view of the medico-legal difficulties which might arise in these cases, ocular complications which may develop during a course of antityphoid inoculation should not be attributed to the treatment, except after a complete and accurate examination of the patient; such aetiology should be accepted only with great circumspection, and after a thorough sifting of all available evidence.

J. B. Lawford.

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IV. NEURO-EPITHELIOMA


(1) Berrisford carries on the work on glioma retinae, which has been done in the past by Messrs. Collins, Lawford, Marshall, and Owen. During the last 42 years the ratio of glioma retinae to other diseases at the Royal London Ophthalmic Hospital has been slightly more than 0.01 per cent. The 41 cases now under review support
the opinion that glioma retinae occurs more often in males than in females (males=22, females=17, sex not recorded in 2). The proportion of bilateral to unilateral cases was 1 to 7, which is below the usual figure. The tumour was observed at birth in 3 cases, within the first year in 9 cases, during the second year in 6 cases, during the third year in 3, during the fourth year in 4, during the fifth year in 3, and during the sixth year in 2. Nine cases out of the 41 may be considered as cured, three years having elapsed since enucleation. The importance of cutting the nerve far back is emphasized by the fact that in not one of the 9 recoveries, had the growth invaded the optic nerve as far as its cut end. In one of the cases the glioma occurred in a shrunken eye; previous literature contains only 20 such cases. There are only two previous instances in literature where a child once affected with glioma has grown up and has had children who developed the same disease; the present series adds a third case of the kind.

R. H. ELLIOT.


(2) A child, aged 8 years, was seen in January, 1916, when the advice given to the parents to have one of the child’s eyes removed on account of neuro-epithelioma was disregarded. The lens of the affected eye was dislocated in consequence of an injury. The iris was tremulous. The lower half of the retina was detached, and the irregular retinal elevation suggested a solid background. After the condition had lasted about eight months a violent contusion ruptured the affected eyeball, which was enucleated. Recurrence stated to have been noted in the orbit about one month after the operation. Patient seen for the first time by Ring towards the end of October, 1916, when a recurrent growth filled the orbit and projected from it to nearly half the size of the child’s head. Its anterior surface was ulcerated and septic. The case was treated by William L. Clark by electro-thermic and other means, full details of which may be found in the original communication. This intervention was followed by much improvement, both local and general. But the child developed a spinal metastasis, followed by convulsions, unconsciousness, and death. No autopsy. Ring pleads for "a reasonable modification of the usually accepted belief that operation in recurrence is absolutely useless."

S. S.
V.—NODULAR OPACITY OF THE CORNEA

Uhthoff (Breslau).—A case of bilateral central punctate subepithelial keratitis, "nodular keratitis" of Groenouw, with anatomical findings. (Ein Fall von doppelseitiger zentraler, punktförmiger, subepithelialer Keratitis "Knotchenförmiger Keratitis" Groenouw mit anatomischem Befunde.)

Uhthoff's patient was a young man of 21 years who had been for long somewhat short-sighted. Beyond measles and an attack of pleurisy he had always been healthy. At 15, his sight began to be dim, and at that time nodular keratitis was diagnosed by Professor Groenouw who had recommended the scraping off of the superficial layers of the cornea.

Vision (corrected for myopia) was 6/12 in each eye. Numerous small, round, sometimes confluent, grey foci lay over the central area of each cornea beneath the epithelium. The eyes were free from inflammation. After 2½ years the condition was worse. A portion of the superficial layers of the cornea was shaved off and examined microscopically. The following changes were found:

1. Partial local thickenings of the epithelium projecting backwards through gaps in Bowman's membrane. The little nodules thus formed lay in pits in the superficial corneal layers.
2. Below the epithelium and the intact Bowman's membrane were small hyaline masses lying in the subepithelial corneal layers and partially due to degeneration of these layers. At places these masses were connected through Bowman's membrane with the epithelial thickenings.
3. At places the hyaline formations took the form of broad homogeneous elongated bodies extending through Bowman's membrane from the corneal tissue to the epithelium. These hyaline bodies stained light yellow with van Gieson's stain and reddish with eosin.
4. The epithelium was mostly normal, but here and there contained small hyaline drop-like bodies. Uhthoff suggests that this disease is a form of "lattice keratitis." The remainder of the paper is occupied by a review of published cases. There are four reproductions of microscopic sections and a diagrammatic sketch of the external appearances.

H. M. TRAQUAIR.

VI.—LIME OPACITIES OF THE CORNEA

Jickeli observed two cases of lime burn of the cornea in which the treatment recommended on chemical grounds by zur Nedden, Guillery, and Clausen was carried out. This treatment consists in the use of a solution of chloride of ammonium and tartaric acid in a proportion varying from 2 to 10 per cent. of the former and about 1/5 per cent. of the latter. In one case the result was fairly good, but in the other the opacity seemed to become worse as a result of the treatment.

To determine with more accuracy the effects of the various solutions Jickeli made carefully located triangular lime burns on the eyes of a number of animals. As a result he comes to the conclusion that lime burns produce an opacity as a result of destruction of the tissue even when the caustic has only acted for a short time, and when the presence of lime in the tissues cannot be demonstrated. When pure calcium hydroxide is employed no deposition of lime in the cornea takes place. It is, therefore, of no use to look for some chemical means of removing the opacity, based on the solution of calcium salts. No beneficial results followed the use of ammonium tartrate solutions in his experiments, and some of the solutions recommended actually caused an increase of the opacity in the previously sound part of the cornea.

A bibliography accompanies the paper.

E. E. H.

VII.—BINOCULAR METAMORPHOPSIA


Lippincott returns to a discussion of the changes produced in the apparent form of objects by means of various forms of glasses. He commences by discussing the principles involved in the causation of these aberrations, and particularly those relating to the estimation of distance and size. He then takes up (1) the effects of cylinders with their axes vertical, (2) the effects of spherical glasses, (3) the effects of cylinders with their axes horizontal, (4) the effects of cylinders with their axes oblique, (5) the effects of prisms on the outlines of objects, and (6) the effects of prisms on the surfaces of objects. The subject is discussed from the mathematical standpoint. The paper does not purport to discuss the anatomical and empirical theories of projection and binocular vision, apart from their bearing on the phenomena of binocular metamorphopsia. It concludes: “From a study of these phenomena, especially the spontaneous
conversion of metamorphopsia into orthomorphopsia, we are led to the conclusion that retinal physiology bears no constant relation to retinal anatomy; that the directions in which images are projected by means of the same retinal elements are subject to variation, and that, for purposes of vision, the corresponding points in the two retinae which count, are those which correspond in function and not necessarily in structure. The marriage of corresponding retinal points is a loose tie, the harmony of which is easily disturbed by interposing new optical conditions, and, as sometimes happens in the social sphere, divorce and remarriage with a more sympathetic partner are effected without undue delay."

R. H. Elliot.

VIII.—BULLET INJURIES TO THE FIFTH NERVE


Uhthoff’s first case was one of injury of the fifth nerve at the base of the skull by a bomb-splinter. The patient had a wound in the right temple, and the right eye remained in a condition of irritability to external influences, becoming injected and developing slight erosions of the epithelium. A suspicion of malingering was aroused. Closer examination showed that the right cornea was somewhat insensitive and that sensation in the area supplied by the first and second divisions of the fifth nerve was greatly reduced. The nasal mucosa on the right side was slightly insensitive, and there was some loss of smell. The third division of the fifth nerve was intact. Sensation was normal in the tongue and lower part of the mouth, but impaired on the right side of the palate. Taste was impaired on the right side of the tongue. During crying or on stimulation by onions or ammonia, tears did not flow from the right eye. No marked symptoms connected with the sympathetic nerve were noted, but the right pupil was a little smaller than the left. Both, however, dilated equally with cocain. A radiogram showed a foreign body lying just in front of the Gasserian ganglion. Later some impairment of sensation appeared in the region supplied by the third nerve. Such isolated injuries of the fifth nerve are very rare. The state of the cornea is to be regarded as due to trophic disturbances dependent on the effects of wind and dust. The case also shows how careful it is necessary to be in making a diagnosis of malingering. Although the absence of secretion of tears might
appear to indicate that the secretory fibres for the lacrymal gland arise from the fifth nerve, Uhthoff believes that these fibres come from the facial system, and run along the superficial petrosal to the sphenopalatine ganglion and thence to the fifth nerve system. In this case there was probably, also, a lesion of the greater superficial petrosal nerve. The loss of taste is explained by the connection with the chorda tympani. The sympathetic nerve was, in Uhthoff's opinion, intact. The second case was one of isolated injury of the second division of the left fifth nerve with blindness of the left eye. The bullet had entered the left temple just behind the upper and outer orbital border, leaving an almost invisible scar, and emerged at the root of the neck on the right side. Immediately below the right clavicle there was another wound. The right eye had 8 D. of myopia and a myopic conus, but full vision. The left eye was almost completely blind. Movements normal; direct pupillary reaction absent, but consensual present. There were old haemorrhages in vitreous and choroid. Sensory paralysis was present in the area of the second division of the fifth nerve, including the left nasal mucosa and part of the hard palate. The upper lip, tongue, and cornea were unaffected. Smell was impaired, but taste was intact. Secretion of tears was normal on both sides. A radiogram showed a bullet in the right pectoral muscle, having evidently re-entered below the clavicle after leaving the neck.

The case provides evidence against the view that the secretory fibres for the lacrymal gland run in the second division of the trigeminus through the subcutaneous malar nerve. In spite of the myopia, the myopic conus, and the blind left eye, Uhthoff apparently did not consider the patient unfit for further military service.

Both cases are interesting on account of the light thrown upon the function of the fifth nerve, and the second in connection with the visual standard in the German Army.

H. M. TRAQUAIR.

IX.—THE ARGYLL ROBERTSON PUPIL


Dunn in this paper revives Marina's theory as to the situation of the centre for light reflex in the ciliary ganglion. He states that he has not had the opportunity of reading Marina's work, and does not know on what his theory was based. Marina (Deutsche Zeitschr. f. Nervenheilkunde, 1901, p. 369; 1899, p. 356) examined a large
quantity of pathological material from cases of various types, and always found marked chromatolysis in the cells of the ciliary ganglion in cases in which the light reflex was interfered with. He also made numerous ingenious experiments on animals, all of which tended to support his views. Dunn brings no new pathological or experimental evidence to support his views, and until this is done the question can hardly be regarded as settled by mere theory on centres, etc. He disagrees with the definition of the Argyll Robertson pupil as regards the loss of the consensual reflex, and says that it is not abolished, but is not called into play, since the two pupils being insensitive to light do not change their size, and there is then no necessity to keep them of the same size. He sums up his views as follow:

"The primary response of the pupil to light is a reflex belonging to the autonomic system. That the rods represent the terminals of the fibres to the subthalamic ganglion and the cones the terminals to the anterior quadrigeminal external geniculate bodies, is a suggestion that came from consideration, first of the necessity of two sets of optic fibre terminals, and second, of the consensual reflex. Whether the suggestion be purely fanciful or not, it opens the way for a number of interesting questions and seemingly answers some of them. The Argyll Robertson pupil is the result of the abolition of the autonomic reflex of the ciliary ganglion. The suggestion that the varied picture of the Argyll Robertson pupil may be explained by the extent of the lesions within the ciliary ganglia and the subsequent degeneration therein is, I think, borne out by analogous pathology elsewhere. The contention that certain features of the optico-retinal features occurring along with the Argyll Robertson pupil in its late stages are due to degeneration of the sensory fibres from the ciliary ganglia to the ciliary region and thence, by the pigment layer to the retina will, I think, prove to be correct."

The whole question of the pupil innervation is only to be solved by more accurate neurological research work such as we may hope for from the use of such methods as Clarke's stereotaxic instrument, the latest model of which has now been sent to America for use in the Johns Hopkins laboratory. The restrictions on and lack of facilities for research work in this country have prevented the use of the instrument for any such complicated research as the investigation of pupillary centres.

E. E. H.
X.—“FLY-BLOWN” ORBIT


It may be remembered that in 1915 an account of three cases of “fly-blown” orbit in children was published by Dr. Azer Wahba, of Zagazig (for abstract see B.J.O., 1917, p. 564) and Barsoum now describes three other cases, also in children. The larvae removed from Barsoum’s cases were sent to Dr. Lewis Gough, who bred from them a sarcophagidal fly identified as *Wohlfartia magnifica Schinner*, which is said never to enter houses. On the other hand, in Wahba’s cases the condition was due to *Cordylobia anthropophaga*.

Briefly, the details of Barsoum’s cases are as follows: 1. A child of two years was affected with sloughing and much swelling of the lids of one eye. The condition gave rise to a most offensive odour, and “larvae dropped from the region of the eye as the child walked through the out-patient shelter.” One hundred worms were taken away. The mesial halves of both lids were destroyed. There was a large pocket, packed with worms, between the eyeball and the nose, and two other pockets, also filled with larvae, were found, one on the upper aspect and the other on the outer side of the globe. The condition was treated by constant bathing with sublimate (1 in 5,000) and by fomentations of potassium permanganate (1 in 4,000). On the second day, the eyeball was eviscerated, and large maggots were removed from behind the globe. Child died on the third day. No autopsy. 2. A child, aged one year, had a notch, about 7.5 mm. in diameter, near the inner canthus of the right upper lid, from which five worms were picked and two others were found free in the conjunctival sac. Recovery. 3. A child of three years showed ulceration of the left orbital region near the outer canthus, and from this three pockets full of larvae extended, one towards the lower lid, a second towards the temple, and a third towards the inner canthus. Recovery. S.S.

XI.—CHRONIC MEMBRANOUS CONJUNCTIVITIS


Readers may recall the fact that three cases of chronic membranous conjunctivitis, affecting infants, were reported by
E. C. Hulme some fifty years ago (Med. Times and Gazette, October 31, 1863), and that similar cases have been recorded in this country by Mason, Hogg, Nettleship, Juler, Bronner, and Morton. Stark now recounts the case of a girl, 11 years of age, whose eyes, mouth, and throat became involved simultaneously by a bullous eruption, accompanied by fever, and appearing over the body, and finally over the face. The lids were much swollen, and there was a discharge of pus from the eyes. There were large whitish spots on the mucous membrane of the mouth and throat. The eyes were left red and "weak," and the inside of the eyelids was of whitish appearance. This condition persisted for over four years. When examined by Stark, vision was 6/6 almost. There was slight entropion of all four lids, and many cilia were missing. The conjunctiva of each lower lid showed a whitish coating, which could be removed as a complete membrane. It was re-formed within twenty-four hours. It consisted of fibrin, entangling xerosis bacilli. The author believes that erythema multiforme was the primary cause of the conjunctival condition in this case, and in support of that view quotes two cases of membranous conjunctivitis due to erythema multiforme reported by Salus in 1912. Stark found a solution of quinin sulphate (3 or 4 grains to the ounce) decidedly useful, for the membrane disappeared from one eye within four weeks and from the other within six weeks under its use.

S. S.

XII.—FILARIA LOA

(1) Cabault.—Two cases of filaria loa. (Dos casos de filaria loa.) Boletín de la Sociedad de Oftalmología de Buenos Aires, Vol. IV.

(1) Cases of filaria loa are not common in the Argentine. The author’s first case occurred in a Frenchman who had spent some years in the Congo and who was in Buenos Ayres in 1913. As he was about to leave to rejoin the colours in his native country, the worm appeared under the conjunctiva, causing symptoms of irritation for which he consulted Cabault. The author saw the worm, but before he could get his instruments ready, it had disappeared. A few days later the man returned, this time with a worm visible and palpable under the skin of the dorsum of the hand. Efforts at removing it failed. After a week a worm appeared under the skin of the lower lid of the left eye. Cabault ingeniously fixed it with a needle and thread, piercing the skin of the lid behind the worm and extracted it easily through an excision in the skin. A few days
Filaria Loa

later the same patient presented himself with another worm under the conjunctiva of the same side. Cabault fixed it in a similar manner and extracted the caudal half of the worm, but failed to deliver the cephalic end. Examination of the patient’s blood showed a large number of embryo filaria, as well as a marked eosinophilia.

Cabault’s second case occurred in a French negro from Martinique who had served as a soldier in the Congo, where he had acquired the disease. In this case the worm appeared in the subconjunctival tissue, was fixed in the same manner, and removed.

Examination of the worms was carried out by Parodi, the parasitologist, and his report is appended. A beautiful plate also accompanies the paper which shows the features of the worms very well and saves a deal of descriptive letterpress.

Cabault points out that the seat of election of the filaria loa is in the superficial integuments and under the conjunctiva, in contradistinction to the filaria perstans and Demarquaii, each of which is longer and finer than the filaria loa. The embryos of the former worm have no sheath and prefer to be in the deeper structures, the mesentery and peritoneum, while the embryos of the filaria Brancrofti haunt the lymphatics, giving rise to lymphoceles and elephantiasis.

The home of filaria loa is Africa, the Guinea Coast, Angola, and, above all, the Congo. In the Argentine it is exotic. A bibliography of filaria literature completes the paper.

R. R. James.


(2) Elliot reports a case of the removal of a filaria loa from beneath the ocular conjunctiva of a patient who had contracted the disease in Benin City, West Africa, about eight years previously. Worms had been taken away from the patient’s eyes on four former occasions. When examined by Elliot, the conjunctiva was congested, but no worm could be seen. After fomentations had been applied, the parasite could be recognized wriggling beneath the conjunctiva, below and close to the cornea. Cocain was applied to the eye and the lower lid pulled down. The worm tried to escape, but just as it was disappearing beneath the dense tissue of the lower fornix, an attempt was made to seize it with forceps. A needle armed with a silk suture was passed through the fold of conjunctiva held by the forceps, and after the suture had been tied tightly the instrument was removed. The opportunity was taken of anaesthetizing and blanching the parts thoroughly. On manipulating the thread, one end of the worm was seen moving freely, and was seized with conjunctival forceps. The parasite was removed through a small incision in the conjunctiva. What
appeared to be a second worm was found embedded in mucus in the lower conjunctival cul-de-sac. The larger worm was a well-grown female filaria, measuring, before it was placed in formol, 36.5 mm. The smaller specimen unfortunately was lost. S. S.

XIII.—MISCELLANEOUS

(Second Notice)


(1) Tooker's patient was thrown out of a motor car, and struck his head against a post. He was unconscious for a day, and then noticed defect of vision in one eye. There was no sub-conjunctival haemorrhage. A skiagraph revealed fracture of the skull. The ocular lesion was optic atrophy. Vision was 13/200. Under strychnin treatment, V. improved to 13/40. The colour fields became partially restored, and a relative scotoma for white, which had been present at the beginning, disappeared. "The explanation of the improvement in vision," says the author, "probably consists in the gradual absorption and shrinking of exudates accompanying the fracture."

ERNEST THOMSON.


(2) Detzel gives notes of a case of a soldier aged 23 who had suffered from trench nephritis. This was followed by swelling of the upper lids. His blood gave a doubtful Wassermann reaction and there was a strong family history of tuberculosis. In addition to the swelling of both lacrimal glands, both sublingual glands and the cervical and axillary glands were enlarged. As no improvement followed general treatment and the eye movements were much restricted with resulting diplopia, Axenfeld removed both lacrimal glands. Inoculation experiments with the excised tissue gave no result. The microscopical appearances of sections of the glands were typical of early tuberculosis. There was no caseation, nor could any tubercle bacilli be detected.

Detzel analyses other recorded cases, and groups the cases called Mikulicz' disease as follows.—(1) Simple lymphadenoid enlargement; (2) lymphomatose infiltration; (3) chronic inflammatory process; (4) a manifestation of a tuberculous process and rarely of
a syphilitic one. As a subsidiary classification, he suggests two main groups; cases with and without blood change, further subdividing the former into genuine leukaemia and the various forms of pseudo-leukaemia, and the latter into cases with and without enlargement of the spleen and lymphatic glands.

E. E. H.


(3) Holm gives an account of ten cases of external exudative retinitis illustrated by drawings and reproductions of fields of vision. All the cases showed retinitis in the outer layers of the retina with a more or less developed subretinal exudate; in other respects there were considerable differences both clinically and ophthalmoscopically. The first two cases were typical of Coats’s group 1 and the third of his group 3. The fourth and fifth cases resembled cases of retinitis circinata. The sixth case showed symmetrical exudation with haemorrhages at both maculae. Three years after these were first noticed the patient died and a pathological examination showed the typical condition of external exudative retinitis, with small perivascular foci in the retina, choroid, and orbit, consisting mainly of epithelioid cells and masses of leucocytes. This patient suffered from lymphogranulomatosis. The seventh case resembled the sixth. In the eighth case the appearances were also confined to the macular areas, but were more scar-like in character. There were no haemorrhages but some irregular pigmentation. The ninth case was that of a child of nine, and belonged to Coats’s group 1. In spite of considerable exudate with retinal detachment, the vision nine years later was 6/6, and there was no defect to be found in the field. The tenth case was a child with congenital syphilis. Holm suggests that a separate syphilitic group of cases may be recognized. He would also add to Coats’s classification a senile group, in which the changes are confined to the macular area, and in which the exudate is seldom prominent and has a definite limitation.

E. E. H.

OBITUARY

A great man of science, Lord Rayleigh, died at Terling Place, Witham, Essex, on June 30th, aged 76 years. In 1865 he was Senior Wrangler and Smith’s Prizeman. He became in 1873 a Fellow of the Royal Society. A few years later (1879) he succeeded Clerk Maxwell as director of the Cavendish Laboratory, Cambridge,