The Annual Congress of the Ophthalmological Society of the United Kingdom was held at the Anatomical Department of University College, London (by kind permission of the Governing Body of University College and Professor Elliot Smith) on April 23, 24, and 25. Mr. Leslie Paton, the President, was in the Chair.

The President delivered an address of welcome. He spoke of the death of two distinguished honorary members during the last year, Professor Gullstrand, of slit-lamp fame, and Hofrat Professor Ernst Fuchs. It was impossible to express the high esteem which was held of Professor Fuchs. The President referred to the appreciative account of Fuchs' life and work which was written by Mr. Treacher Collins in the British Journal of Ophthalmology. Fuchs' contributions to scientific knowledge had hitherto been unequalled.

Mr. Foster Moore read a paper on "Non-luetic Argyll Robertson Pupils." He gave an account of 15 cases, 12 of which were females. The onset was not accurately known, some of the patients seeking advice for cosmetic reasons. There was no fundus abnormality and the visual acuity was unaffected. In 13 patients one pupil only was involved and in 12 this was in the left eye. The pupil was semi-dilated, inactive to light, and on convergence there was a slow contraction lasting about 25 seconds and a slow relaxation. The ciliary muscle was not involved and there was no failure of the pupil to dilate fully. With eserine the pupils contracted quite fully. There was no evidence of syphilis and the Wassermann reaction was negative. Other constitutional disease was absent.

Dr. Gordon Holmes, Mr. Herbert Fisher, Dr. Ballantyne, Colonel A. E. J. Lister, and Dr. Dorrell discussed the paper.

Dr. Gordon Holmes read a paper entitled "Iridoplegia associated with other nervous symptoms." His investigations had been made on 54 cases excluding those due to syphilis, encephalitis lethargica, diphtheria, botulism, and drugs such as atropine. There was no ordinary recognizable cause for the paralysis. The tendon reflexes were either absent or diminished.

The age incidence was from 10 to 40 years. The onset was sudden, and the condition in some cases remained stationary for seven years, in others it was progressive. The majority of cases were unilateral, but some of these had the second eye affected at a later date.
The pupil of the affected eye was moderately dilated, irregular in outline, inactive to light, and showed slight reaction on convergence. The reaction on convergence was of a tonic character; contraction was slow, lasting about 52 seconds, and when complete was equal to the contraction of the other eye; relaxation was also slow and took about 90 seconds.

The reactions to other stimuli were normal, except in one patient, who, when she became emotionally excited, the affected pupil became pin point. The reaction to eserine was normal. In some patients the accommodation was defective and slow. The knee jerks, ankle jerks, and arm jerks were absent. Examination of the blood and cerebro-spinal fluid revealed no evidence of syphilis.

It is assumed that the site of the lesion is nuclear. Dr. Gordon Holmes discussed the possibility of a muscle lesion such as a myotonic condition. He quoted Cords' case where a gunshot wound involved the ciliary ganglion, and he mentioned the association of tetany with this condition.

In the discussion that followed this paper Dr. Giri described a patient who was 30 years of age. One pupil was inactive to light and there was slight reaction to convergence. The visual fields were contracted to about 30°. Neurological examination failed to reveal anything positive, and there was a hysterical element present.

Mr. Herbert Fisher described a case of two boys who were twins. One had unilateral iridoplegia and the other bilateral. At one stage there was also present cycloplegia in one of the boys. There was no evidence of syphilis.

Dr. Ballantyne asked if a neurologist could distinguish between myotonic and neurotonic manifestations.

Colonel Lister and Dr. Dorrell also took part in the discussion.

Mr. Herbert Fisher read a "Report of two cases of nystagmus." The first was less than a year old and the seventh child in the family. It was injured by a blow behind the right ear and two weeks later developed jerking movements of the right eye. The pupils were active, the media, fundi, and optic discs normal.

The second case was eight months old and a congenital syphilitic. Deviation of the eyes to the right preceded the nystagmus. It was assumed that there was an irritative lesion either in the left cerebral cortex or in the right half of the midbrain.

Mr. E. Wolff read a paper on "A contribution to the pathology of papilloedema." He described the experimental work he had done on dogs. The conclusions he made were (1) Non-diffusible dyes injected into the cranial sub-arachnoid space, at pressures which are compatible with life, do not enter the optic nerve. (2) Claims to have produced papilloedema by injecting fluids into the subarachnoid space at pressures compatible with life were not upheld by this study. Structural reasons were advanced for the special site of the beginning of papilloedema in human beings, and for the extent of the distribution of the oedematous fluid associated with papilloedema.
Mr. Wolff also read an interesting paper on "Bilateral microphthalmos."

Mr. A. W. Ormond described "A case of Osteitis deformans with Ocular Symptoms." In the left eye the pathological changes involved the macula. There were a choroidal haemorrhage, pigmentary disturbances, and an atrophic area. In the right eye there was a large mass of organizing tissue at the macula, also a scattered patch of old haemorrhagic pigment. The choroidal vessels were sclerosed and tortuous and the retinal arteries small and attenuated. Mr. Ormond discussed some of the theories about the aetiology of this disease.

An afternoon session was set apart for a discussion on "Affections of the eye due to virus."

Dr. J. R. Perdrau opened the discussion. He said that the terms "ultramicroscopic" and "filtrable" were not applicable to viruses as known to-day. He described the chief characteristics of viruses, and compared them with those of visible bacteria.

Inclusion bodies in one or more organs or tissues are present in certain virus diseases; some, such as the Negri bodies of rabies, are highly characteristic and important for diagnostic purposes. An important negative character of viruses was that, up till now, it had been impossible to cultivate them on lifeless media. There was often a close association between viruses and the cells of the tissue or organ in which they multiplied in the living animal. This was of importance in regard to problems of infection and immunity in their broadest sense.

Dr. Perdrau described in detail the study of the viruses of vaccinia and herpes, also species specificity and tissue specificity in relation to immunity.

Mr. F. T. Ridley described certain eye diseases which are believed to be due to viruses. The virus of vaccinia inoculated into a rabbit's cornea caused a lesion similar to a vaccinial pustule in the skin. In herpes febrilis keratitis the lesion started as a localized opacity in the substantia propria, this might spread and affect the whole cornea. Perdrau's virus, obtained from the lungs of patients dying of pneumonia, produced a very severe keratitis. Mr. Ridley also spoke about dendritic ulcer.

Mr. F. A. Williamson-Noble paid a tribute to the work of Dr. Perdrau. He described Campbell and Head's account of the pathology of herpes zoster and the histological changes in the Gasserian ganglion. An important factor is the resistance of the patient and the local resistance of the affected part. The treatment was mainly symptomatic, but Friedenwald had reported the result of treating such a case with convalescent serum. Mr. Williamson-Noble was of opinion that sympathetic ophthalmitis may be due to virus infection, which passes from one eye to the other by means.
of the optic nerve sheaths and chiasma. If this is true then it is important that the optic nerve should be divided as far back as possible when excising the exciting eye.

Mr. L. H. Savin described two cases in which he believed a virus was responsible for the activation of other organisms. One was a case of cavernous sinus thrombosis which followed nine days after vaccination against smallpox in a rheumatic patient. The patient died on the fifth day of the illness and streptococci were found in the pus at the base of the brain. The other was a case of smallpox suffering from a left corneal ulcer.

Mr. Humphrey Neame spoke about distemper keratitis in dogs, and pointed out how this closely resembled syphilitic keratitis in human beings. He demonstrated microphotographs of corneal nebulae, vascularization, corneal infiltration with leucocytes, and associated iridocyclitis.

Sir John Parsons, Sir Richard cruise, Mr. Treacher Collins, Mr. Leslie Paton, Mr. Mayou, Mr. Whiting, Colonel A. E. J. Lister, Mr. Wolff and Dr. Girl took part in the discussion that followed.

Mr. Alexander MacRae read a paper on "A case of a hole at the Macula." He described the history and physical signs of the patient and showed fundus paintings taken at certain intervals of time since the injury. He considered that the case was of unusual interest on account of the rarity of this condition.

Friday, April 24.

Mr. J. H. Doggart read a paper on "Epithelial Dystrophy of the Cornea." He reviewed the literature and described the clinical features and slit-lamp appearances of the cornea in these cases. Histological examination showed that no inflammatory cells were present. Treatment consisted in the application of heat, massage, and dionine. Subconjunctival injections had been tried, and also the administration of glycerophosphates and organo-therapeutic agents.

Miss Ida Mann read a very interesting paper on "The Development of the Cornea." The paper was well-illustrated by drawings of serial sections of the eyes of rodent and mammalian embryos. Miss Mann described the part played by the three germ layers in the formation of the cornea, the development of a cleft and "directional membrane," and the role of the meso-stroma. It is necessary to read the original paper in order to gain the full value of this interesting contribution to the knowledge of embryology.

Air Vice-Marshar Sir David Munro read an interesting paper entitled "Vision in Sport." He said that visual factors were not alone concerned in proficiency in games, good muscular co-ordination and kinaesthetic sense were as necessary as good visual judgment. He emphasized the importance of acquired memory perceptions and the receptive side of training. Instructors
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of games should not attempt to train on the motor side until the perceptive side had been investigated and any faulty visual factors corrected. He classified the various types of visual judgments in games as follows: — (1) Those in which the player had to follow with both eyes the flight of an approaching or receding ball and to judge its pace; (2) games, such as golf and billiards, in which such factors as pre-judgment of the position of the ball after making the stroke, the distance, and angles of incidence and convergence were necessary; (3) shooting sports, in which the flight of an approaching or receding object had to be followed with both eyes and accurate timing carried out; (4) the monocular sport of shooting at a stationary or a moving target; (5) aviation and motoring, in which other perceptive factors such as touch and hearing were also brought into play.

The chief visual judgments to be made in games concerned pace, space, and place. Ocular balance is very important in judging distance. Sir David Munro concluded his paper by saying that if he were a teacher of ball games he would rely on the amblyoscope and stereoscopic charts for correcting the chief sources of visual error.

The discussion was opened by Sir John Parsons who commented upon the many important points that this paper raised. He spoke about the psychological and physiological problems involved in the perception of space and movement. He considered the importance of suppression in making certain visual judgments. He said that there were three types of visual judgment: (1) Instinctive (thalamic) (2) Intuitional produced by habit and (3) Rational (formative) and illustrated this by describing the golf swing as an example of these three types. The physiological aspect of making visual judgments involved posture, reaction times, response to the whole situation, and interferences with intuitive response. He spoke of the teleological value of animal play.

The paper was keenly discussed by others including Mr. MacCallan, Colonel A. E. J. Lister, Mr. Mayou, and Dr. Rowan.

MR. GORDON WRIGHT described "A new method for the Treatment of Gonococcal Conjunctivitis in the Adult." He advocates the abolition of blepharospasm by temporarily paralysing the facial nerve with novocaine 10 per cent. and alcohol 10 per cent. A trephine hole is made through the upper lid just above the outer canthus. A rubber drainage tube is passed into this and sutured so that the end is flush with the palpebral conjunctiva. The conjunctival sac is repeatedly irrigated through the tube. Mr. Wright contended that the risks of corneal ulceration were thereby reduced.

MR. M. S. MAYOU read a paper on "Treatment of Chronic Blepharitis." He described the various types of chronic blepharitis and the part played by the staphylococcus in these affections. He recommended the use of an autogenous vaccine of mixed staphylococci and Morax-Axenfeld bacilli; 1,000 million to be injected into the lids once a fortnight in very chronic cases.

MR. W. A. GRAY read a paper on "Retinal Vessel Changes in
Diabetes.” His investigations were made on 228 diabetic patients having insulin treatment. Loss of translucency of the artery as it crosses the vein, and flexion of the vein to 20 or 30 degrees are the earliest changes. Mr. Gray gave statistics of arterio-sclerosis, incipient gangrene, senile cataract and other arterial diseases found in the patients he examined.

Mr. Bernard Chavasse read a paper on “The Nature and Antiquity of Stereopsis.” He described the development of the fovea, stereoscopic vision and convergence in such fishes as the sea horse and John Dory.

Dr. A. J. Ballantyne read two papers. The first “A case of Detachment and Reflection of the Retina,” and the second “A case of Congenital Cataract with Unusual Features.” These cases were admirably illustrated by paintings and drawings.

Mr. R. C. Davenport described “A case of Spasm of the Central Retinal Artery.” The patient was a man of 57 who for one month had suffered from persistent pyrexia and pains in the limbs. There was frequency and difficulty in micturition, and the teeth and gums were infected. There was evidence of arterial spasm elsewhere. The blood pressure was raised. The patient had suffered from recurrent attacks of partial loss of the visual field of sudden onset. During an attack the pupil was fixed and dilated, the retinal arteries narrow and the retinal veins presented a “cattle truck” appearance. The optic disc was pale but not hazy. There was no cherry red spot for three minutes. Looking down induced an attack. Mr. Davenport discussed the possibility of a neuro-muscular element and a temporary toxaemia.

Dr. Ritchie Russell read a paper on “Hereditary Aspects of Leber’s Optic Atrophy, with a report of cases consequent upon the Mating of cousins.” This paper was illustrated by a genealogical table.

Mr. A. D. Griffith read a paper on “Squint and Binocular Vision,” and spoke of his experience with fusion and muscle training exercises.

Miss Maddox gave a very interesting account of “The Orthoptic Treatment of Strabismus, Indications and Results.” She said that the elimination of macular suppression was of paramount importance. She described the nature of the lessons and exercises in fusion training and the cultivation of the fusion-faculty. Her results, which are remarkable, were admirably illustrated by tables.

In the evening Sir Almroth Wright delivered an address on “Vaccine Therapy.” He described the methods of protection against infection, by lysozymes, anti-trypsin, and phagocytes. By means of diagrams he demonstrated diffusion factors at work between a 5 per cent. solution of sodium chloride and serum, and
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spoke about the importance of this in the treatment of wounds. Antiseptics destroy lysozymes, phagocytes, and the body fluids when in sufficient strength to kill bacteria. Sir Almroth Wright dealt with the value of chemotherapeutic substances, such as salvarsan, which has an endo-seric and endo-haemic antiseptic action. He described the changes in the opsonic index of the blood when vaccines were used, also the process of immunization in vitro and non-specific immunization. The address was very interesting and admirably delivered.

DR. A. H. H. SINCLAIR described his operation of "Intra-capsular Extraction of Cataract," and the developments in its technique. The operation was illustrated by a cinematograph. Dr. Sinclair gave some notes on the cases he has operated on.

Saturday, April 25.

MR. S. SPENCE MEIGHAN read a paper on a "Case of Retinitis Pigmentosa treated by Cervical Sympathectomy." The field of vision on the side operated upon was improved.

MR. TUDOR THOMAS gave an account of "Experimental Transplantation of the Cornea in a rabbit to replace a Corneal Opacity." He described the technique of making a corneal graft and suturing it in position. Four rabbits were demonstrated at the Congress. Three of these had corneal grafts illustrating the effect of adherence of the iris to the base of the graft. In one rabbit the anterior synechia between the iris and graft gave way a week after the operation and the graft subsequently became clear. In others in which the iris remained adherent the graft was partially opaque. In the fourth rabbit an opacity was produced by applying an electro-cautery to the cornea. Seven weeks later a corneal graft was prepared and substituted for the corneal nebula, which was removed by trephining. On the 8th day after operation the graft was cloudy, and on the 13th day it was injected, but the iris was free. Two months later, the central part of the graft was just nebulous and six months later a histological section through the graft showed an increase of corneal nuclei and some blood vessels near the deep part of the cornea.

MR. I. R. PATERSON read a paper on "Some Notes on Eye Conditions in Compensation Cases in Scottish Miners." He gave a statistical survey of this subject and showed the prevalence of hypopyon ulcer among these injuries and their sequelae.

Dr. Ballantyne, in discussing the paper emphasized the importance of admitting cases of infected corneal ulcers into the ward of a hospital. Bad sanitation and lack of careful treatment at home was responsible for the aggravation of the condition and the loss of time from work.

Mr. Cridland spoke about the difficulties in eliminating sources of infection and unhygienic conditions in mines. Hypopyon ulcer is liable to follow quite simple injuries under such conditions.

MR. C. SHAPLAND contributed an interesting and valuable paper on "An Analysis of 100 cases of Retinal Detachment treated by
Cautery Puncture." In December, 1929, Sir William Lister at Moorfields Eye Hospital carried out the first operation of cautery puncture (according to Gonin's technique) in this country and since then 100 cases had been so treated. 56 of the patients were males and 44 females. The average age was 41½ years. 32 patients had myopia over 5 D., and 24 less than this; 3 had aphakic eyes, and in 41 the refraction was either emmetropic or hypermetropic. In 56 myopes suffering from retinal detachment 9 gave a history of trauma as the exciting cause, in 41 emmetropes 16 attributed their detachment to trauma.

Mr. Shapland described 5 types of retinal holes, festoon, rounded or punched out, arrow-head, horse-shoe-shaped, and radial or slit-like. In some cases there were irregular rents. The commonest site was the periphery of the retina in the temporal half. 40 patients were discharged as cured and 17 others showed improvement either in the visual acuity or the area of the field. The average age of the cured cases was 34½ years.

Mr. Shapland's statistics regarding the prognosis and the type of case that affords a better chance of cure are worth studying.

Mr. Cole Marshall, Sir William Lister, Mr. Greeves, Mr. Juler, Mr. Whiting, Miss Mann, Mr. Davenport, Dr. MacRae and others took part in the discussion.

The afternoon was devoted to a visit to the National Institute for Medical Research, Mount Vernon, Hampstead, where by kind permission of Dr. H. H. Dale, C.B.E., F.R.S., many interesting demonstrations were given. Dr. Dale showed an apparatus for carrying out perfusion experiments. It was both elaborate and ingenious. Dr. Perdrau exhibited some rabbits suffering from herpes keratitis. Other demonstrations were Mr. Barnard, the microscopic examination of bacteria illuminated by fluorescent and ultra-violet light; Dr. Bourdillon, irradiation and distillation of ergosterol in relation to problems connected with vitamin D; Dr. Rosenheim, a colorimeter; Mr. Philpot, a new photometer; Capt. Douglas, infectious ectromelia, a virus disease of mice; Dr. Wilson Smith, vaccinal keratitis in rabbits; Dr. Gallaway, eye symptoms occurring in chickens suffering from polyneuritis probably due to a virus; and some histological sections by Dr. Laidlaw and Mr. Jeffery showing the permeability of the enamel of the teeth. There was also an interesting demonstration on the methods of preparing filters.

Exhibition.

During the Congress there was an exhibition of instruments, apparatus, and appliances, the exhibitors being Messrs. Bowing, Clifford Brown, Clement Clarke, Curry and Paxton, Down Bros., Dixey, Hamblin, Hawes, Keeler, Lewis, Pankhurst and Barrett, Rayner, Uni-luxe Optical Co., Weiss, Meison Wingate, and Carl Zeiss.

Annual Dinner.

The Annual Dinner of the Society was held at the Langham Hotel, the President, Mr. Leslie Paton, was in the Chair. The President in his speech expressed regret
for the absence of Sir Arthur Keith, Dr. Morax, and Professor Elliot Smith as guests. He referred to the letters of appreciation he had received from the distinguished foreign guests who attended the 50th Anniversary of the Society last year, and said that they had expressed their regard for the scientific value of the papers read before the Society on that occasion. It was probable that next year the Congress would be held in Edinburgh, where there would be a warm welcome. Mr. Leslie Paton expressed thanks to all those who had helped to make his term of office a pleasant one.

Mr. M. S. Mayou proposed the health of the guests, whom he described as personal friends of the Society. They prevented ophthalmologists from becoming hide-bound and narrow. In particular, he expressed gratitude to Dr. Watts Eden, the President of the Royal Society of Medicine, Dr. Dale, Professor Douglas, and Dr. Perdrau.

Dr. Watts Eden responded to the toast to the guests. He said that the highway to the mind is through the vision, and that the care of the eyesight of the public deserved a very high place in the profession of medicine.

Dr. Gordon Holmes proposed the toast of the President. He spoke of his distinguished work and the service he had rendered to ophthalmology. In particular, he mentioned the work that the President had done in connection with the International Congress at Amsterdam.

H. B. Stallard.

ABSTRACTS

I.—GENERAL MEDICINE


(1) The occurrence of ophthalmoplegia interna as an isolated symptom is so uncommon that reports of individual cases are desirable. As in most instances, only the clinical characters of this case are available. Favory’s patient, now aged 34 years, gave a history that 10 years ago (September, 1919), he found, suddenly, that he was unable to see objects near to him, while his sight for distant objects remained undisturbed. He went to a hospital and spectacles (+ 4 D.) were prescribed. These he has used for reading, etc., since that date. The loss of reading vision was unaccompanied by other symptoms; he had no headache, vertigo or diplopia.

When examined by Favory the following conditions were noted:—bilateral but unequal mydriasis of moderate degree, the left pupil being larger than the right. The pupillary reflex to light and to convergence-accommodation completely abolished; the Galassi-Gifford reflex perceptible though feeble.

Distant vision was perfect with + 1 D. sph. + 0.5 D. cyl., and with + 4 D. sph. + 0.5 D. cyl. the smallest type was easily read.

The irides were free from signs of previous inflammation; the ocular media were clear, the fundi and tension normal. Ocular movements were unrestricted; there was no nystagmus, no