On Wednesday afternoon, Dr. Mawas, President of the Ophthalmological Society of Paris, entertained the members at a Thé Dansant in the salons of the "Cercle de l'Union Interalliée," familiar to many British officers as the house presented by M. Henri de Rothschild to form an inter-allied officers' club during the War.

A performance at the Opera House of "L'Illustre Frégona," with its cheerful exhibition of various Spanish dances, formed a fitting climax on Wednesday evening to a most charming series of entertainments.

It would be impossible to refer to all the hospitality shown in private by members of the Society resident in Paris to their guests, but to all who were fortunate enough to be invited, these parties will be among the most pleasant memories of a very memorable week, which gave all who took part in it the opportunity of renewing old friendships and forming new ones.

We who were the guests of the Society can only express our most sincere thanks to the Society and especially to its most amiable Secretary, Dr. Onfray, for their most generous hospitality to us on the occasion of their "Cinquantenaire."

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BRITISH MEDICAL ASSOCIATION

Centenary Meeting

The Ophthalmic Section of the British Medical Association Centenary Meeting met in London on July 27 and 28, 1932, under the Presidency of Sir John Parsons.

The morning of July 27 was devoted to a discussion on ocular manifestations of lesions of the Fifth Nerve.

Mr. Foster Moore in his opening paper referred to the close relationship between Herpes Zoster Ophthalmicus and Varicella, and described the pathological changes found in the Gasserian ganglion in the former condition. The acute inflammatory changes in the ganglion are more pronounced if the eruption is severe, leading to permanent loss of function associated clinically with neuro-paralytic keratitis. In mild cases recovery is complete. Herpes zoster might occur as early as four years of age, but the average age was 41 to 55 years. General paralysis and tabes were predisposing causes. Intra-ocular complications occur in 60 per cent. of cases and in these cases usually the naso-ciliary nerve is affected, with a rash on the side of the nose.
Associated ocular palsies usually cleared up in time. The third nerve was affected in 74 per cent. of these cases. Optic atrophy sometimes occurred, and non-ulcerating nodules were occasionally found in the sclera which left brown spots at which the conjunctiva is adherent to the sclera.

As an alternative to the theory of anti-dromic influences, he referred to the possibility of the products of disintegration of ganglion cells passing down by the nerves to the skin. Mr. Foster Moore believed in tarsorrhaphy for neuro-paralytic keratitis and for conditions where the ganglion was destroyed.

Dr. C. M. HINDS HOWELL said that spontaneous corneal ulceration was most likely to occur when the first neurone was affected in its extra-medullary portion. He had never seen it develop in supranuclear or medullary lesions. Surgical methods of treating tic doloureux showed an advantage over alcohol injections, in that it was possible to avoid damage to the fibres of the first division of the fifth, which is rarely affected primarily.

Of 60 cases treated by alcohol injection, 36 had complete anaesthesia of the first division and 16 of these developed corneal ulcer. The first fortnight was the most dangerous period for the cornea. He remarked on the increased effect of X-Rays on insensitive tissues, and said that malignant tumours appear to advance more rapidly if the sensory nerve supply to the part affected is cut off.

Mr. HUGH W. B. CAIRNS discussed lesions of the fifth nerve from the surgical point of view, expressing a preference for post-ganglionic neurotomy.

An interesting discussion followed in which Dr. HUGH CARLETON, Mr. DOGGART, Mr. BALLANTYNE, Mr. CHARLES RUDD, and others joined. Dr. RUSSELL BRAIN referred to the possibilities of treatment in cases of Herpes zoster; intra-thecal administration of sodium iodide in the acute stage, pituitrin in a later stage, and X-Ray therapy in the second or third week.

Thursday morning was devoted to short papers.

A very interesting paper was read by Squadron-Leader P. C. LIVINGSTONE, R.A.F.M.S., on "Some Effects of Glare upon the Eyes." He gave the results of a large number of careful observations he had carried out on patients in the neighbourhood of Baghdad where there is much glare. He found that those who had been exposed to the glare for prolonged periods showed certain changes in the visual fields, including large scotomata, which were not present in newcomers to the country.

Mr. BISHOP HARMAN demonstrated a "Projection Scotometer" in which the usual test object is replaced by a spot of light projected from the instrument on to a white or grey surface.

On Wednesday afternoon a scientific demonstration was arranged at University College, in association with the Physiological
Society. The demonstration was almost unique in that so many of those engaged in laboratory research on subjects of Ophthalmological interest, were present to demonstrate their work.

The following is a brief account of the various demonstrations.

Mr. W. S. Stiles showed a Photometric Pupillometer, an apparatus for determining the diameter of the pupil based on matching a photometric field. Also a "Brightness difference threshold meter," an apparatus for measuring the deleterious effect of glare on visibility.

Mr. J. Guild demonstrated an apparatus showing the visual acuity attainable at very high field brightness. A miniature set of Snellen's Letters engraved on glass, was illuminated by transmitted light. These letters could still be read when the intensity of the light was increased to such a degree that a central scotoma persisted for several minutes after making the observation.

Professor Popa and Dr. Fielding demonstrated the portal blood supply of the pituitary gland, while anatomical demonstrations of the orbit and cranial nerves were shown by Professor H. H. Woollard and Mr. E. Wolff. Professor H. A. Harris showed various specimens of historical interest relating to localization in the cerebral cortex, and gave a demonstration on the comparative anatomical aspects of the visual apparatus.

Dr. J. H. Shaxby showed a "Two Collimator grating Spectrometer," useful for superimposing spectral colours in the examination of colour defective subjects and for other purposes.

He also showed a simple pocket photometer for measuring the reflecting power of the coal face in a mine, or for observations on the skin in anthropometric or clinical work.

Miss Ida Mann demonstrated clinical methods of examination applied to the eyes of living animals, emphasizing certain genetic characters in typical eyes of mammals.

Her exhibits were arranged under three headings:

1. A series of animals illustrating six of the commoner types of fundi. Orange red fundus (man and the primates); iridescent green and brown fundus with tapetum (cat); amphibian fundus with visible circulation in the retinal vessels (African nirmskull frog); ophidian fundus with tunica vasculosa retinae (Corais snake); lacertilian fundus with simple conical pecten (Callopisteses-yellow spotted lizard); avian fundus with plicated pecten (pigeon).

2. A series of animals showing modifications of the lids.
   Nictitating membrane (opaque in the pigeon, transparent in the crocodile).
   Transparent lid (frog and skink).
   Closing eye by raising lower lid (frog and lizard).
   Permanently closed lids with transparent corneal scale (snake).
Lids almost completely fused so that only pupil is exposed (chameleon).

3 The slit lamp appearances of four types of vertebrate iris.
   Mammalian arrangement (albino guinea-pig).
   Elaboration of sphincteric plexus in birds (pigeon).
   Colour pattern continued from head into iris stroma (python).
   Pigmented vessels and specialized pupil (gecko).

Mrs. Campbell and Mrs. M. C. Bourne demonstrated ocular lesions in rabbits following administration of naphthalene. These consisted of retinal exudates, lentinal opacities, and deposits (of crystals of calcium oxalate) in the retina.

The type of lesion produced is markedly affected by the diet. On a calcium rich diet, such as oats and cabbage, the lens is not affected, retinal exudate is scanty, but crystals are deposited in the retina. On a calcium poor diet, such as bran and carrots, retinal exudate is extensive and cataract develops.

One of the rabbits exhibited a remarkable deposit of glistening crystals in the retina.

Professor E. D. Adrian gave a demonstration of the discharge of sensory impulses in the optic nerve when the eye is exposed to light, and the audience had the novel experience of listening to the sensory messages passing from the eye to the brain.

The eye of a water beetle was set up in a dark chamber with electrodes leading from the optic ganglion and the optic nerve. The electrodes were connected with an amplifier and a loud speaker so that the passage of a nerve impulse with its accompanying electric discharge gave an audible click, and a discharge of impulse in the whole nerve gave a loud noise. Feeble illumination of the eye produced an immediate discharge in the optic nerve, and the changes in the intensity of the sound showed how the discharge varied with dark adaptation, moving or steady light, etc.

Oscillograph records of the nerve impulses were also shown to illustrate the general use of the method in the investigation of the sense organs.

Mrs. Lythgoe (née Tansley) demonstrated the development of visual purple in the rat retina. It was shown that the rat retina is not fully developed until 20 days after birth, and that visual purple does not appear until the rods have got well developed outer limbs. The development of the rat retina in vitro was also demonstrated by living cultures and stained specimens, showing that the immature retina can be made to develop rods and cones after removal from the body by cultivation in artificial media. It was also shown that in tissue cultures of the retina, rosettes are formed which closely resemble those found in glioma retinæ.

Professor H. E. Roaf demonstrated some points in connection with colour vision. He showed how a sensation of yellow is
produced by binocular combination of red and green, and how a sensation of blue is produced by "secondary excitation" when observing a spot adjacent to a small point of red or green light. He demonstrated the poor visual acuity obtained in blue light, suggesting that the receptors for blue represent a larger area than those for red and green. He also showed how a coloured diagram and a copy made by a hypochromat look alike if viewed through a blue filter, but if viewed through a red or green filter the mistakes stand out by contrast. He demonstrated the interference with the visibility of one coloured light by another light, and showed the presence of red, yellow, and colourless globules in the cones in the retina of a bird.

Mr. R. J. Lythgoe showed an apparatus for photographing the pupil in red light. The source of light was an arc light focused through an orange-red filter on the eye. The light was flashed on for 1/30th of a second and the photograph taken on very rapid panchromatic plates. He also showed a simple apparatus for recording small quantities of light by means of bromide paper standardized by comparison with similar paper exposed behind a neutral tint wedge.

He also demonstrated the Pulfrich phenomenon, showing how the swing of a pendulum appears to take the form of an ellipse if viewed binocularly with a dark glass before one eye. This is due to the delayed reaction time of the darkened image and the displacement is proportional to the logarithm of the ratio of the brightnesses of the two retinal images. A similar effect is produced if one eye is subjected to glare.

Mr. W. S. Duke-Elder and Mr. E. B. Robertson demonstrated the ultra-microscopic appearances of the vitreous body and blood plasma. The substance to be examined was placed in a black glass container illuminated by the focused light of a carbon arc. The ultra-microscope was arranged at right angles to the beam of light so that the light entering the microscope is scattered from the particles in the medium. The vitreous viewed in this manner showed a structure of fine interlacing fibrillae which persist under sterile conditions for some ten days. A similar appearance is given by 1 in 50 horse plasma in normal saline.

The fibrillae in the first case probably consist of "residual protein," in the second case, of fibrin.

They also demonstrated a magnetic method for the measurement of the rigidity of the vitreous body. The vitreous was contained in a glass cell, and a small (20 μ—200 μ) particle of nickel drawn into the gel by means of a powerful magnetic field. The nickel can then be deflected by means of a suitable electro-magnet, its movements being observed and measured through a microscope. The movements are rapid at first and become slower, corresponding to those obtained for gelatine gels or plasma.
Professor H. Hartridge demonstrated chromatic aberration in the eye and an apparatus permitting direct measurements; also a quantitative test for colour blindness.

Mr. J. W. Tudor Thomas demonstrated rabbits with transparent corneal grafts. One of these grafts had been observed for three years and four months and still remained transparent.

A graft of sclera on to the cornea of a rabbit was also shown.

J. W. Tudor Thomas.

ABSTRACTS

I.—LENSES


(1) Cole's article is mainly concerned with the detailed history of a case of tetany in which this condition, and eventually cataract, developed as the result of surgical removal of the two lateral lobes of the thyroid. Treatment with parahormone had no effect on the cataracts which, if one rightly understands the author, were being operated on by Mr. Arthur Cooke by needling, at the time of writing. The patient is aged 34 years. The author refers very briefly (at the commencement of his article) to the literature, beginning with Erdheim in 1906, showing the association of cataract and muscular spasms with parathyroid deficiency.

Ernest Thomson.


(2) This is the record of a case in which Branbergen watched the development of bilateral cataract as a sequel to thyroidectomy. A married woman, aged 34 years, underwent thyroidectomy in June, 1924, local anaesthesia being employed. The thyroid gland was firmly adherent to surrounding tissues: the median portion was completely removed: the wound healed normally.

The following day widespread "spasms" developed, which were treated and controlled by calcium. (The author does not use the term tetany in his paper).

Four years later vision in both eyes began to fail; after a year of