hands being even aggravated. Schiele, in 1901, used iodic acid, glicin and iodoglicin and considered iodic acid to be a useful method of treatment. Simi, in the same year, reported good results with iodic acid. Morgano, in 1902, used iodvasogen and obtained good results, the pannus being cleared up. Maretti, in 1924, after having expressed the granules, smeared the bleeding spots with 10 per cent. iodine and also touched corneal ulcers with a like strength, obtaining good results. Theodor Ballaban, in the same year, scraped off the pannus with a sharp spoon and smeared the denuded area with iodine. He repeated the application of iodine every 2 to 5 days and obtained rapid clearing of the pannus.

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OXFORD OPHTHALMOLOGICAL CONGRESS
XXIst ANNUAL MEETING

The XXIst Annual Congress was held at Oxford on July 9, 10, and 11. The Deputy Master inaugurating the first meeting alluded to the unavoidable absence of the Master through illness and suggested that the Congress should send a telegram expressing its regrets at the absence of Mr. Cridland. Mr. PATON in opening the symposium on the diagnosis of intracranial new growths reminded the members that the subject was a weighty one, and that it occupied no less than nine volumes of Willbrand and Saenger. In his opinion, papilloedema was the most valuable sign but it was essential that the observer should be well trained,
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because it was not difficult to mistake pseudo-oedema for real oedema or to miss a relatively low grade of oedema altogether. Cases illustrative of these pitfalls were briefly outlined. Bailliant's sign—raising of the retinal arterial pressure was alluded to as being valuable, particularly as it was present before the development of oedema. The opener then proceeded to discuss the histology of papilloedema and to explain why the blurring appeared first at the upper and lower margins of the disc. He gave a valuable statement as to the sites of the tumour formation most likely to cause oedema and gave the relationship of the various ophthalmoplegic syndromes to the locality of the causative lesion. Nystagmus was briefly considered and it was pointed out that the absence of physiological nystagmus might be just as important as the occurrence of the pathological variety.

Sir Percy Sargent opened his remarks with a plea for early diagnosis. If the physician in charge of a case waited for the establishment of the classical triad of headache, vomiting and papilloedema it might well be too late to do anything by surgery, in fact students should be taught to regard this as a warning of impending death rather than as significant of an operable tumour. Some sort of classification is necessary, the best being a combination of the topographical and histological ones. Of vital importance, was the first symptom experienced by the patient, since this might show the site of origin of the tumour. Subsequent progress was often of importance in indicating the histological character of the growth. In the relatively non-malignant endothelioma, the progression of symptoms was orderly and uniform, whereas in glioma the advance was much less uniform owing to the occurrence of sudden changes such as haemorrhage, oedema and degenerations. The examination of the cerebro-spinal fluid might also help in the diagnosis of the type of tumour. Mr. Traquair emphasized the fact that while in many cases, perimetry may add only one feature to an otherwise complete clinical picture, in others it may furnish the only sign of the disease. The great point in perimetry was to do it, and to do it properly. The defect should be examined with regard to its position, size, shape, and intensity, uniformity, margins, quality, and behaviour. To do this adequately, meant using objects of various sizes and sometimes colours. Thus the fields of one case showed no abnormality until 1/2,000 test object was used, while in another there was no field loss appreciable with any size of object but a 10/2,000 red object showed definite hemianopia. An interesting series of fields was shown and their interpretation explained. Particular reference was made to the field changes in temporal lobe tumours and it was shown how these could be explained better, as a result of pressure on the optic tract than as a
result of interference with the geniculo-calcarine pathway. Mr. Norman Dott likened a cerebral tumour to a prisoner in the dock and the various signs to the witnesses. Of these witnesses, the most reliable was perimetry. Evidence of this was afforded by a case in which the sole manifestation of disease was the presence of field changes indicating a chiasmal lesion, these gradually progressed and operation disclosed the presence of a soft cystic adenoma of the pituitary in spite of negative X-ray findings and the absence of any disc changes. Several other interesting cases were described in which perimetry played a large part in the diagnosis.

Prof. Dr. Schüller spoke on the X-ray findings. These can be divided into five classes: (1) Negative, usually associated with gliomata, suprasellar tumours and extra-cerebral ones in the posterior fossa. (2) Evidence of increased intracranial pressure. (3) Direct localizing signs, owing to calcification or ossification of the tumour. (4) Indirect localizing signs. (a) Hyperostosis of the skull. (b) Thinning of the skull by pressure of the tumours. (c) Erosion by infiltration. (d) The presence of enlarged venous channels. (5) Signs apparent only after injection of air or ascending lipiodol. A very fine series of radiographs was shown, to demonstrate these various methods of localization.

In the afternoon Prof. Elliot Smith delivered an address on "The Evolution of the Instruments of Vision." Primitive unicellular organisms react to the stimulus of light, and the earliest form of eye is merely a specialized portion of skin with some pigment deposit behind it. Evolution of the eye is relatively rapid and a complicated type can be found in quite lowly animals. In primitive vertebrates, the optic tracts are connected only with the mid-brain, and have no connection with the cerebral hemispheres. The progress of evolution is largely bound up with the acquirement of cerebral connections for the visual tracts and the acquirement of more precise control over ocular movements. When this is achieved, the maculae develop, thus giving much finer degrees of visual acuity and ability to control the movements of the body by conscious visual, rather than by reflex vestibular impulses. Such control allows the assumption of the erect attitude and liberation of the hands from purposes of locomotion. All this entails great changes, and development in the cerebrum, and the lecturer showed in a fascinating manner how one factor reacted on another to result in the production of homo sapiens.

At the conclusion of the address, Mr. Paton moved a vote of thanks to Prof. Elliot Smith, which was carried by acclamation.

The discussion on the diagnosis of intracranial new growths was then resumed, and Prof. Dr. Schüller showed the remainder of
his slides. Prof. Emil de Grosz emphasized the need of co-operation between various specialities in the diagnosis of cerebral tumours, and Dr. Giri described an obscure case of hemianopia complicated by glaucoma. Dr. Tyssøn described a case of acromegaly complicated by the presence of calcified carotid arteries and Dr. Parker, his experiments in the production of papilloedema. In these, one eye of an animal was trephined, and the intracraniæal pressure artificially raised by the introduction of some substance into the skull. In every instance the resulting papilloedema appeared first in the eye with the lower tension. There are fallacies in the clinical application of this work, which Dr. Parker explained. Mr. Stammus alluded to the need of employing small objects in perimetry and Mr. Paton replied shortly. The Congress then adjoined to a very pleasant garden party given at Magdalen College through the kindness of Dr. H. H. MacKeith, Dean of the Medical School.

The Annual Dinner was held in the Hall of Keble College. There was a large attendance and the culinary efforts of the college were much appreciated as were also the speeches after dinner. On Friday morning Dr. Bailliart delivered an address on tonometry. He pointed out that Bowman was the first observer to take note of the intra-ocular pressure and that tonometry, therefore, dates from him. There are now no fewer than 30 different types of instrument but none of them can give a strictly accurate measurement of the intra-ocular pressure, since the diameter, convexity and elasticity of the cornea vary from patient to patient. Also the reaction of the eye to the pressure of the tonometer is variable, and curves illustrating this were shown. There are three types of cases, (1) where the second and subsequent readings are lower than the first (2) where they are the same (3) where they are higher. The last group is important, since they are potentially glaucomatous. Dr. Bailliart concluded by emphasizing the fallaciousness of digital estimation of the intra-ocular pressure. The paper was then discussed by Dr. Traquair, Col. Wright, Dr. Parker, and Mr. Harrison Butler.

After the Annual Meeting had been held, Mr. Adams gave the Doyne Memorial Lecture. The title was "An Ophthalmological Mélange" and the mélange proved to be an extremely interesting one, composed of various cases which the lecturer had had under his care. The first to be dealt with were spasm of accommodation, and spasm of convergence. Progressive myopia was then discussed. Calcium deficiency may be a factor in this condition, but it is not the only one, since cases were described in which the myopia progressed in spite of administration of this substance. There is probably some relationship with growth of the body as a whole and myopia shows a tendency to increase when this is taking
place. Three cases of Parinaud's conjunctivitis were described, one was definitely tuberculous, a second was probably tuberculous, and the third was due to the pneumobacillus of Friedlander. Conical cornea and glaucoma were then considered and interesting illustrative cases were cited. Finally, a case of bilateral retinal detachment was described in which no hole could be found, but complete cure resulted from puncture of the sclera followed by thorough cauterization of the margins of the wound. Mr. Walker congratulated the lecturer on his address and presented him with the Doyne memorial medal.

Dr. Harold Gjessing then read a paper on Holth's iridencleisis. The operation was fully described, and the results obtained in a series of 122 eyes were given. These had been under observation for periods varying from 6 to 129 months and showed 81 per cent. of cures. One interesting feature of the operation is that its full effect on the intra-ocular pressure may not be manifest for one or two months. Dr. Emil de Grosz was inclined to favour cyclodialysis for cases of chronic glaucoma, and claimed 78 per cent. of successes. This figure at the end of the first year, however, is only 62 per cent., and at the end of the second 54 per cent. This operation can easily be repeated and the figures quoted referred, presumably, to cases where only one operation had been done. Mr. Harrison Butler had practised iridencleisis by a slightly different technique for several years and out of 36 cases had had only two in which the intra-ocular pressure was not lowered. He had also performed the operation in ten cases of acute glaucoma in all of which it had been successful. Dr. Crisp had used the operation for the last two and a half years, and was satisfied with it. His technique was slightly different, as he dissected up a conjunctival flap. Col. Wright was more inclined to trephine.

In the afternoon a telegram of good wishes was read from Prof. Lundsgaard, and Mr. James Craig then opened the discussion on penetrating wounds of the eye. He gave a comprehensive survey of the subject and divided the types of injury into five groups, namely, direct, indirect, and those due to bacterial infection, chemical action and cyst formation. The use of a conjunctival flap was urged, on account of the permeability of corneal scars to pneumococci and staphylococci. The flap could be made to retain its position if the affected area of cornea were first carbolized or touched with trichloracetic acid. Advice was given as to the removal of foreign bodies from different parts of the eye and sympathetic ophthalmitis came in for consideration. Prof. Dr. Schüller described four different methods of localization and gave details of the so-called physiological one, which gave excellent results
in Vienna. In this, five exposures were made with the patient's eye in different positions, the X-ray tube not being moved. Mr. Percival Hay enumerated various accidents which had caused perforating wounds of the eyeball. Out of a total of 131 cases, in 82 with corneal wounds the eye was lost in 25, in 28 with corneoscleral wounds 17 eyes were lost and in 21 with scleral wounds only seven were lost. Mr. Harrison Butler, described Vogt's "bone free method" of radiography and the slit-lamp changes to be looked for in cases of suspected sympathetic ophthalmitis. He had found prophylactic injections of N.A.B. to be of great service and had had no useful information from a differential blood count. Mr. Chavasse had had the same experience. Dr. Gjessing described another method of X-ray localization in which small buttons of lead were attached to the limbus and Dr. Giri gave the result of parenteral milk injections in traumatic infections of the globe. In his hands, this method had proved remarkably successful. Mr. Zorab emphasized the importance of considering the condition of the uninjured eye and dwelt on the seriousness of injury to the lens from the prognostic standpoint. Dr. Greene suggested the use of antitetanic serum in injuries resulting from agricultural implements and Mr. Adams reported an interesting case of removal of a piece of copper from the vitreous by the scleral route.

Mr. Rugg Gunn then read a paper on contact glasses. These are particularly useful to airmen and drivers of fast cars since their use does not interfere with monocular appreciation of perspective, they give a larger field of vision than ordinary glasses and they enable perfect fusion to take place in ametropia. Various points in the fitting of contact lenses were then explained. Dr. Marion Gilchrist asked whether they were of service in conical cornea, and Mr. Rugg Gunn related a case of this disease in which vision had been improved from 2/60 to 6/9 by their use. Dr. Giri alluded to the importance of allowing the patient to test his toleration by trial lenses before having a pair of his own.

Saturday morning saw the welcome return of the Master, Mr. Cridland, who was accorded an ovation on taking the Chair.

Dr. Bernard Samuels read an interesting paper on the methods of formation of posterior abscess in ulcus serpens. His observations were based on the histological examination of 50 eyes enucleated for this condition, 42 of them being glaucomatous at the time of removal. The ulcers never extended to the peripheral or the deep layers of the cornea, though in many cases, necrosis of the lamellae might occur. The infiltrated border never extended round the whole circumference of the ulcer. The posterior abscess might be flat or protuberant. In some cases it lay between
Descemet's membrane and the posterior lamellae of the cornea, in others it appeared to split the membrane. Leucocytes probably arrive by two routes (i) by penetrating Descemet's membrane which can occur only where the endothelium has been shed (ii) by extension from the periphery along the interlamellar spaces. The paper was discussed by the Master and Messrs. Harrison Butler, Young, Crisp, Coulter, Miss Marion Gilchrist and Prof. Curran.

Dr. Crisp read a paper on the cross cylinder tests especially for astigmatic axes and gave an interesting photographic demonstration of the effects of astigmatism. To determine the axis, as opposed to the amount of astigmatism present, the cross cylinder is held at 45° off axis and quickly rotated from one side to the other. The method is susceptible of great accuracy and gives good results in practice. The paper led to a lively discussion.

Mr. Young opened his paper on recession of the internal rectus muscle with a plea for a symposium on strabismus at next year's congress. He estimates the amount of recession necessary, by a simple formula, but emphasized that operation was only the first step in the cure of squint, its full result not being manifest until several months later. The paper was followed by a discussion in which allusion was made to various methods of operating. Mr. Nichol Hughes showed fundus drawings of macular disease in children. This condition was commoner in girls and in a fair proportion of cases the only aetiological factor which could be discovered was a previous attack of measles. In the discussion it was suggested that some of the cases might have been tuberculous though no tangible evidence of this disease had been obtained.

Prof. Curran then read the final paper of the Congress on peripheral iridotomy in acute and chronic glaucoma. The technique of the operation was described, also its applicability to different types of cases. Some of these were described in detail.

During the Congress, the members had ample opportunities for visiting a well-stocked scientific and commercial museum. In the former Mr. Burdon Cooper had a demonstration showing fluorescence of removed cataractous lenses under ultra-violet light, Mr. George Young showed some slides illustrating haemorrhage into Cloquet's canal without rupture of the hyaloid membrane. Miss Margaret Dobson and Mr. T. H. Whittington showed devices for training squinting children, Mr. Arthur Greene a specimen of idiopathic panophthalmitis and Mr. Russ Wood, slides of epithelioma of the limbus and papilloma of the caruncle.

The Congress as a whole was a great success and reflected much credit on those responsible for its organization.

F. A. W.-N.