there was, therefore, mirror-symmetry in these features. Mirror-symmetry was likewise shown by the radius of curvature and refraction of the cornea.

ARNOLD SORSBY.


(2) Zahor's communication follows on that of Jess (Brit. Jl. of Ophthal., Vol. XIV, p. 425, 1930). The author describes two cases where fully formed changes due to chalcosis ended in complete resolution. In one case a typical sunflower cataract and also a golden-yellow partial star at the macula, had formed six years after the original injury due to a bomb-explosion, which had caused the loss of one eye and an unobserved entry of a fragment of copper in the other. Four years later neither lens nor retina showed any trace of the earlier manifestations of copper, though the foreign body was still in the eye, no attempt having been made to remove it. Vision, which had been poor during the time of active changes, became restored to 6/9.

In the second case early chalcosis was observed one year after the accident: a fully formed sunflower cataract was present four years later, when the vitreous was yellowish and a yellowish lesion was seen on the retina. The condition remained unchanged for a year, but became almost completely resolved within the following year. Vision was fully restored.

ARNOLD SORSBY.

BOOK NOTICES


This work, surely the most comprehensive, and with the possible exception of Leber's original paper, the most valuable contribution to the literature of hereditary optic atrophy, is another notable product of the skill and industry displayed by Miss Bell, in this type of research.

Hereditary optic atrophy is eminently suitable as a subject of a part of the Nettleship Memorial volume. It claimed Nettleship's active interest for many years; indeed, no less than twenty-three of the numerous observations here collected were recorded by him,
and the author tenders in her work “a warm appreciation of the work of Nettleship on Leber’s disease.”

A life-like portrait of Theodor Leber forms an appropriate frontispiece; following the letterpress are: a name-index to the chronological bibliography and to the recorders of pedigrees, a bibliography of 153 references; descriptive accounts of 16 plates, containing 225 pedigrees, some of which are extensive and complex.

In the introductory paragraphs, Beer (1817) is credited with the earliest reference to the disorder; in 1858 von Graefe published a report of three brothers, subjects of the disease. In 1871 Leber’s paper appeared, and concerned nine cases in four families, and reports of six allied cases. His description of the essential characteristics of the disease was so thorough that but few additions to our knowledge have accrued since that date.

Following the introductory pages, the main features of hereditary optic atrophy are considered in six sections. This part of the volume is of absorbing interest and contains, in addition to numerous statements of fact, analytical remarks on points open to doubt, or to diverse opinions. Lack of space alone prevents a lengthy review, and brief references to some of the many points of interest must suffice.

(a) Sex-incidence.—Until recently hereditary optic atrophy has been classed among the sex-limited diseases. Miss Bell’s figures show that this view is untenable. Among Europeans the numbers are: males 863, females 155. Among Japanese, the proportion of females is much higher, the numbers being: males 97, females 67. This relative sex-limitation leads the author to discuss the question in reference to this and other hereditary diseases usually placed in this category; her conclusion is that “The sole condition, within my experience, which appears to be perhaps truly sex-limited is haemophilia,” and she quotes Bulloch’s statement: “So far as we can find . . . no case has yet been described in a female which bears more than a superficial resemblance to the disease (haemophilia) as found in the male.”

(b) The character of the onset and age at onset.—“The onset in hereditary optic atrophy is a very indefinite term, the particular significance of which may vary from one case to another. . . .” The writer is unwilling to make a more definite assertion than “probably a majority of cases reach this maximum disability within two months from the time at which the patient becomes aware of failing vision.”

From the material collected a graph has been constructed showing “the grade of liability to develop the disease at each period of life in males and females.” The peak is reached in European males at 20-23, and in females at 12-15. In the Japanese records the figures (as in sex-incidence) are noticeably different. The male curve for
Europeans shows that the majority of cases occur "within the period which should be of maximum efficiency . . ."; this seems to be consistent with the view that the disorder "arises from an inherent defect of vitality." The author is inclined to accept hereditary optic atrophy as one of the abiotrophic diseases, but has some doubt whether such a curve as it exhibits can be accepted as illustrating "the age of onset characteristic of abiotrophic disease in general." Investigation of completed histories of the disease in successive generations indicates that there is no evidence of antedating in the age of onset in a succeeding generation.

(c) Clinical signs and symptoms.—In discussing colour-blindness as a symptom, the author tells us that "there is no evidence that hereditary optic atrophy tends to occur in the subjects of congenital colour-blindness," nor has any recorded case been found "in which an acquired disturbance of colour vision was noted prior to the onset of atrophy as indicated by lowering of visual acuity for form . . ."  

(d) Course and Prognosis of Hereditary Optic Atrophy.—A tabular statement giving the duration of the disease at the time of the latest record seems to show that there is no marked tendency to a relatively early death. The question of heavy infantile mortality in families exhibiting this disease (generally accepted as an established feature) is discussed: analysis of selected pedigrees leads the author to state that "without pledging myself to any view as to whether the association of high child mortality with hereditary optic atrophy . . . is a chance or a significant relationship, I do not think it would be easy, if possible, to obtain figures showing a similar degree of association from an equal number of pedigrees of other non-fatals hereditary diseases."

The early deaths exhibit no significant sex selection, which might be expected if the cause were at all closely connected with the hereditary disease; the sex ratio differs little from that for deaths under five, in the general population.

Comparatively few reports of cases furnish reliable information concerning improvement or recovery. In the author's records are "211 cases in males, which appear to have shown no improvement over a period of years, and 86 in which improvement has been noted; 12 of the 86 showed complete recovery of vision. . . ." In females the figures, concerning improvement are too limited to be of value.

Certain tentative conclusions are reached as the result of analysis of the material available; two of these are (1) an early onset, say before the age of 16, "would appear to denote a relatively favourable outlook." (2) "Not only is the liability to the disease inherited but also its prognosis for the individual," i.e., improvement occurs more readily in certain stocks than others.

(e) The association of other disabilities with hereditary optic
atrophy.—"A careful search through the collected material reveals no disease characteristically associated with hereditary optic atrophy."

(f) Hereditary character of the disease, and its mode of transmission.—The questions, numerous and interesting, which arise in this section are discussed lengthily and judicially: to epitomise is difficult and apt to be misleading, but a few points may well be noted. Lossen's law, i.e., the transmission of certain sex-limited hereditary diseases entirely through the female line, has proved to be inapplicable to haemophilia; following this "statements have been made that hereditary optic atrophy would be shown to be commonly transmitted through the male . . ." This assuredly is not the case. A number of pedigrees "show normal grandsons of affected males, but many more show affected individuals who were known to have an unaffected maternal grandfather. . . ." "There is no doubt that this disease is transmitted very generally through the female, who is commonly unaffected, and that in a large proportion of histories the transmission has probably been confined to the female line. . . ."

Of 573 affected males 95 per cent. owe their affection to the mother, and of 88 affected females 84 per cent. owe their affection to the mother.

An interesting table "showing the relative apparent responsibility of males and females for the transmission of hereditary disease" is given. This includes 7 forms of hereditary disease in addition to hereditary optic atrophy and merits careful observation. It shows "the heavy actual responsibility of women in this matter, whatever may be the underlying causes operating to produce this state of affairs. . . ."

". . . I have no doubt, with regard to hereditary optic atrophy, that if the sisters of affected males abstained from parentage the disease would be almost exterminated."

The production of the volume by The Cambridge University Press is, as usual, beyond criticism.


The 50th volume of Transactions forms a worthy memento of the annual congress held to celebrate the jubilee of the society last year. In bulk it forms the largest volume of the series; this is due to the fact that the last third of the book contains the decennial index for the years 1921-1930. Always in previous years this fact has been indicated on the cover, but for some reason it has been omitted in this volume. The transactions of affiliated societies, of
course, swell out the volume, particularly the very able Doyne memorial lecture by Harry Friedenwald at the Oxford Congress.

The Transactions for the year 1925, in two volumes, run to 985 pages; for the rest, Volume XLIII, with 721 pages, is the next largest single volume to the present, though Volume VI, with only 530 pages, looks bigger.

We hope to notice the more important contributions to this volume in future numbers. Here we will content ourselves in offering the congratulations of British ophthalmology to the treasurer of the society, Sir Arnold Lawson, on the highly satisfactory result of his negotiations with the Inland Revenue authorities. These have resulted in the society receiving the substantial sum of £75 8s. 7d., as a refund of income tax.

The society is in very strong condition, both financially and as regards membership. Long may this satisfactory state of affairs continue.

Cadilhac. L'Extraction Totale de la Cataracte par l'Erisiphaque. (Methode de Barraquer.)

This book contains a detailed account of the Barraquer technique and concludes with an analysis of the last thousand cases on which Professor Barraquer has operated.

Recent research has been directed to the study of the elasticity of the zonular fibres which are of such great importance in this operation, and Professor Barraquer has, in course of construction, an instrument, based on electro-magnetic principles, with which it is possible to measure this elasticity. Past the age of forty, these fibres will sustain a stretch of about one millimetre: the amount of stretch bears an inverse ratio to the age of the subject.

The latest model of the erisiphake has the gauge incorporated in the pedestal; it is capable of producing a negative pressure of 45 to 75 cms. of Hg and at the same time, lateral vibrations of from 5 to 6,000 per minute, thus acting, not only as a vacuum but also as a zonulotome. Successful extraction by this method depends on the accurate apposition of the suction disc to the lens capsule; this, in turn, depends on adequate dilatation of the pupil. There appears to be a little difficulty in maintaining this after the aqueous has been evacuated. Barraquer relies on 5 per cent. euphthalmine with 5 per cent. cocaine and adrenaline, whilst Saint Martin, a pupil, finds that sub-conjunctival injections of adrenaline are necessary.

The appendix of results of the last thousand cases at the Barcelona Clinic have not been hitherto published.

In 787 cases there were no post operative complications, whilst in 91, there was hyphaema, and, in a like number, there was re-opening of the wound.

The visual results are as follows:—680 cases had vision of 10/10; 145, 10/10 to 7/10; 108, 7/10 to 4/10; 58, 4/10 to 1/10.
Nine cases had vision of 1/10 to 0. Of these, 299 cases were without astigmatism. The results would be of still greater interest if they had been detailed as to each type of cataract instead of for the class as a whole.

This lucid account and the excellent results obtained will go far in stimulating renewed interest in the Barraquer method of intra-capsular extraction.


The first Congress of the All-India Ophthalmological Society was held in Bombay in April, 1930. The Proceedings contain a list of the officers, committee, and the sixty-four members; also a copy of the rules and regulations of the society.

Dr. B. P. Banaji, Chairman of the Reception Committee, delivered an address of welcome. He spoke of the need for cooperation between Indian ophthalmic surgeons and their professional colleagues in Europe and the rest of the world, particularly in combating such diseases as trachoma. He reminded them of the necessity for research work in the prophylactic and remedial treatment of blindness.

Dr. B. G. S. Acharya gave the Presidential address. He brought to the notice of the meeting the recent action of the General Medical Council with regard to the recognition of medical degrees conferred by Indian Universities. He stated that the object of the society was the pursuit of knowledge for its own sake, and urged the maintenance of a high ethical standard. He described ophthalmology as a specialty, the growth of the fundamental sciences, practice, teaching, research work, and curative and prophylactic measures.

Among the more important papers are the following:—Distribution of trachoma in India and some points with regard to its treatment, by Dr. C. N. Shroff; Operative treatment of spring catarrh, by Dr. C. N. Shroff; Treatment of corneal ulcers, by Dr. B. G. S. Acharya; Some observations on the severe forms of corneal ulcer in the Mysore Province, by Dr. B. N. Narayana Rao; Eye affections in leprosy, by Dr. R. P. Ratnakar; Report on a case of acute retrobulbar neuritis in acute myelitis, by Dr. P. P. Subba Rao; Report on a case of unilateral microphthalmos with non-separation of the lids, by Dr. P. R. Subba Rao; Certain cases which relate to the sinususes round the eye and affecting the eye, by Dr. T. D. Dhruv; and lastly a paper on Eye diseases and their treatment in the time of Sushruta, by Dr. D. D. Sathaye, who described the treatment of cataract and trachoma about 500 B.C., and gave references to original manuscripts.

The papers were followed by discussions.

Volume XVII, No. 1 of this journal, is produced as a memorial number in honour of the late Professor Ernst Fuchs, visiting Professor of Ophthalmology in China in 1922.

L. Sallmann has written an obituary notice in appreciation of the life and work of the Professor, and a signed photograph of him is reproduced on the frontispiece.

There are several original articles of interest written in English, particularly a clinico-pathological report of ocular neoplasms among the Chinese, by W. P. Ling. Dr. H. T. Pi has written an interesting account of western ophthalmology in China, and a résumé of an ancient Chinese treatise on ophthalmology.

There are editorial articles about post-graduate training in ophthalmology, and the prevention of blindness in China.

At the end of this journal there are annotations, book reviews, and finally another article by H. T. Pi and W. P. Ling in appreciation of the late Professor Ernst Fuchs.

NOTES

Mr. Adrian Caddy has been appointed Surgeon to The Royal Westminster Ophthalmic Hospital, on completion of five years’ service as Assistant Surgeon.

* * * *

The Cirincione Prize of the Italian Ophthalmological Society is offering a Prize—the Cirincione Prize—of 20,000 lire (about £215) for an original work in the field in Ophthalmology, completed during the years 1931 and 1932. The work should be in Italian and typewritten in three copies. It must be sent in not later than August 31, 1932. Ophthalmologists holding Professorial Chairs and those who are over 45 years of age are not to be allowed to compete. In addition to the first prize, there will be a Gold Medal to be presented to the second and also to the third competitors, in order of merit.

For any further information on the subject intending competitors should apply to the President, Prof. Giuseppe Ovio, R. Clinica Oculistica-Policlinico, Rome, or to the Secretary, Prof. Romeo Roselli, at the same address.