one may add, that patients would express such gratification if the rays did not penetrate further than the stratum corneum. As a matter of fact the rays do penetrate to the conjunctival sac, as any ophthalmologist can prove to his own satisfaction if he cares to make use of the tungsten arc-lamp for sterilization of the conjunctival sac before operation.

It is the long wave lengths that are the most effective for this purpose and it is likewise these long wave lengths that are more penetrative, and these are present in high percentage in the tungsten arc-lamp in addition to the short wave lengths. I look upon ultra-violet radiation as the most useful method of sterilizing the conjunctival sac.

I treated over 200 cases of trachoma successfully in private in Hong-Kong, there being no ultra-violet ray installation available at the hospital. The time of both doctor and patient is saved and the gratitude of patients after one or two treatments is a pleasure to observe. Most of the patients stated that they had had no treatment which caused them greater relief and comfort soon after the first application.

I am of the opinion that trachoma could be rapidly eradicated from a community or school if an intensive campaign by team work were established, using tungsten arc-lamps, under expert supervision.

ABSTRACTS

I.—PATHOLOGY


(1) The condition known as Boeck's sarcoid of the skin was described in 1899 under the term of multiple benign sarcoid tumours of the skin. It is now recognized as a general affection. In the skin, nodules of varying size develop: from a few millimetres to several inches in diameter. If these are pressed upon by a glass, apple jelly-like nodules, similar to those observed in lupus, but smaller, are seen. The sites of election are the face, back, neck and extensor surface of the arms. Microscopically collections of epithelioid cells with an occasional giant-cell are seen: small round cell infiltration, so characteristic of lupus, is very sparse. In the smaller of the long bones, X-rays show up
typical cyst-like spaces. Mucous surfaces (tongue, nose and tonsils) may become involved, as also lymphatic nodes and parenchymatous organs. Microscopically the changes are similar to those in the skin.

Ocular complications of this general condition have been reported, especially iritis and irido-cyclitis. Blegvad has collected from the literature five cases of conjunctival involvement and reports three more observed by himself. Only two of the five reported cases are held by the author to have been cases of Boeck's sarcoid of the skin, and on the basis of the five remaining cases he constructs a general picture of conjunctival involvement in this disease. The nodules affecting the conjunctiva may vary in size and number, from a few discrete dots to a completely studded tarsal conjunctival surface. The nodules are mainly clear, yellowish follicles. There is scarring, though in an old-standing case a tendency to symblepharon has been seen. The pre-auricular glands are not involved. The nodules show no tendency to involve the cornea; they have a chronic course which is unaffected by the administration of light and arsenic, remedies which affect the skin lesion favourably.

The nature of the affection is unknown. Its relationship to mild tuberculosis and to Mikulicz' disease is discussed.

Arnold Sorsby.


(2) Daniels reports a case of iridocyclitis with secondary glaucoma in the eye of a patient in whom the other eye was the seat of a choroidal sarcoma. The eye with the tumour showed a detachment for which no operation was performed, and when ultimately the eye was removed, the neoplasm was seen to be still confined within the sclerotic. The literature on the subject of sympathetic ophthalmitis in intra-ocular new growths is critically reviewed. The author holds that the pigment cells of the tumour have some connection with the sympathetic inflammation, all reported cases having occurred in pigmented sarcomata. Another factor is necrosis of the tumour cells; for it is only when these break down that the pigment can be liberated. The reasons why sympathetic ophthalmitis is rare in tumours are the early removal of such eyes and the infrequent decomposition of the cell mass.

Arnold Sorsby.

In 11 1/2 years, in a series of about 60,000 cases, two cases of glioma of the optic nerve were seen in Seefelder's clinic. These cases were reported upon by Hidano in 1925 (Zeitschr. f. Augenheilk., Vol. LVII, p. 31). Seefelder now reports on their late history.

In the first case, operated upon in 1920, the tumour was only partially removed through a Krönlein approach. The child is in good health and the eye, though showing some evidence of degeneration and prone to be irritable, is in a satisfactory state.

The second case, a child of eight months, had a Krönlein operation in 1924. Practically the whole of the orbital part of the optic nerve was removed, but two years later the child was brought back with a recurrence of the exophthalmos for which a further operation was performed with but little effect. A year later the child was re-admitted and found to have hemiparesis due to frontal cortex tumour. Nothing was done and the child is still alive, though very cachectic, the orbit being filled with neoplastic tissue.

The severe course of the second case is contrary to general experience which regards glioma of the nerve as an innocent growth. In view of the preponderance of ocular signs and the comparatively late involvement of the brain, Seefelder holds that the growth originated in the orbital part of the nerve.

In contrast to this he reports a case of a blind boy, aged 9 years, in whom autopsy revealed glioma beginning in the intracranial part of the nerve. In such cases the ocular symptoms are limited to optic atrophy and blindness; there is no exophthalmos and no disturbance in motility. These cases are exceptionally rare.

Arnold Sorsby.


Primary glioma of the optic nerve must be distinguished from secondary invasion of the nerve by extension of a growth from the globe or brain. In reporting three cases of this rare tumour, Lindberg points out the extreme variation in structure shown by different parts of the same tumour. The classification of these tumours, besides the obvious one of tumours arising from the sheaths and those from the nerve tissue, is discussed. Besides the classical clinical signs of increasing exophthalmos,
good ocular motility and the propulsion of the eye straight forward, the author stresses easy dislocation of the globe from between the lids.

One of the author's cases received X-ray treatment to the maximum dose without any beneficial result and ultimately came to operation, Krönlein's operation. The patient died from meningitis. The author pleads for the safer orbital explorations after the manner of Knapp or Lagrange, especially when the eye is damaged.

Arnold Sorsby.


Bulac's paper is well illustrated. His material was mainly oxen eyes, for he found that human, goat, sheep and rabbits eyes had the same structure. On special points such as the types of astrocytes there were some differences and these were specially studied. He concludes that Del Rio Hortega's technique is the most satisfactory for the study of neuroglia, completely supersedes the methods of other Spanish observers, and gives most promise that with modifications it will solve the outstanding problems in this connection. One such modification is suggested by the author, whose work in the main confirms the findings of Marchesani. By staining the retina with gold sublimate after the method of Ramon y Cajal the author could demonstrate astrocytes in the tissue; staining after Hortega shows up Müllerian supporting fibres.

Arnold Sorsby.


Ehlers and Okkels report a case of their own and review the literature on mixed tumours of the lacrimal gland. They conclude there are two types of growth, one encapsuled and innocent, the other lowly malignant, with a tendency to break through the capsule and burrow into the orbit. These types are apart from the frankly malignant tumours.

From the point of view of treatment, these tumours must be regarded as malignant. They are refractory to radiotherapy and
owing to the possibility that they extend deeply should be approached by a Krönlein incision.

ARNOLD SORSBY.


(7) Kreibig reports the case of a girl, aged 21 years, who died from multiple metastases due apparently to a bronchial carcinoma. There had developed bilateral oedema and exophthalmos, and post-mortem examination showed carcinomatous emboli in the chorio-capillaris and also extensive infiltration of both orbits with metastatic deposits. The emboli in the chorio-capillaris the author regards as blood-borne; their failure to develop is a well established characteristic of such cells when planted in a surrounding which for some reason in unfavourable to their further growth. In the extensive metastases in the orbits the author sees evidence in favour of the view that the orbit does indeed have a lymphatic supply.

ARNOLD SORSBY.

II.—MISCELLANEOUS


(1) Harris, in his paper on circumscribed abscess of the sclera, comments on the fact that only in recent years has this condition been recognized as a separate clinical entity, and that it is not described in the standard text-books of ophthalmology.

The patient was a woman, aged 29 years, thin, anaemic and seven months pregnant. Six weeks before examination some hot fat had entered the left eye, but after a few days the eye recovered from the injury.

The abscess was situated between four and five o'clock, extended to the limbus and measured 5 mm. × 3 mm. × 2 mm., was soft and not tender on palpation. The conjunctiva was movable over the swelling. The swelling was incised and a large drop of thick green pus evacuated. Pieces of the neighbouring sclera were removed for examination. The underlying uvea was apparently unaffected. No micro-organisms were found in the pus, and the pieces of sclera were found to be composed of granulation tissue.
The author believes that the abscess was metastatic, but he was unable to detect any primary focus on clinical examination. He quotes cases from the literature.

H. B. STALLARD.


(2) Hughes advocates the use of novocaine and alcohol for this condition. The technique is as follows: 0·3 c.c. of 4 per cent. novocaine is injected through the skin of the outer canthus into the fibres of the orbicularis muscle for a distance of about 4 to 5 mm. near the margin of the lower lid. Leaving the needle in place, the syringe is replaced by one containing 0·2 to 0·3 c.c. of 95 per cent. alcohol, which is injected into the same site. The results are apparent a few hours after the injection, which can be repeated in a few days, though this is seldom necessary. Five cases are reported in four of which the result was successful; the failure was in a patient where the tissues of the lower lid were very loose.

F. A. W-N.


(3) Sabatsky claims to have found in artificial wintergreen oil almost a specific remedy for abrasions, ulcers and opacities of the cornea. The treatment consists in scraping off, under cocaine anaesthesia, the foreign body or unhealthy tissue as the case may be, putting a tiny drop of wintergreen oil at the tip of a thin glass rod on the scraped area, gently rubbing it in, and then applying cocaine ointment—strength not mentioned—and bandaging the eye with “Elastoplast” or other bandage. Except for the scraping, which is not as a rule called for again, the treatment is repeated daily until healing is complete. The author has for years obtained practically transparent, smooth corneae in cases of corneal foreign bodies, abrasions and ordinary ulcers and this induced him to try the method in ulcus serpens. The treatment is the same as described above except that the scraped area is treated with one per cent. optochin solution before the wintergreen oil is rubbed in. Up to now he has treated 24 cases of pneumococcal ulcers, many of them very severe, and finds the method eminently satisfactory, the rapidity of cure with minimum of corneal change and retention of good vision constituting the outstanding features. He ascribes
the beneficial effect of artificial wintergreen oil to (1) its germicidal action and capacity to penetrate deeply into the corneal tissue; (2) its being almost a specific corneal tissue regenerator; (3) its tension-reducing action on the globe, sometimes rendering it so soft as to make one get the impression that perforation had occurred and (4) its capacity not only to clear existing scars and leucomata but also to influence new-forming corneal lamellae in such a way that from the outset no opaque tissue is formed.

The author adduces no laboratory evidence of the germicidal action of wintergreen oil. The trial of wintergreen oil in primary and secondary glaucoma to study its effect on intra-ocular pressure suggests itself to the reviewer.

D. V. Giri.


(4) It seems advisable to notice in this journal the Lancet report of Foster Moore's case without waiting for the report of the R.S.M. During treatment of syecosis on the face heavy doses of X-rays were employed. The disease affected the eyelashes. The treatment lasted several months and the syecosis was completely cured. Sight began to fail between 1927 (the year of the treatment) and 1929. In June, 1930, the visual acuity was 6/60 in each eye. The visual defect was due to "a plaque-like opacity in the posterior cortex of each lens, while bordering this was a powdery opacity. The fundi were normal." The cataracts were successfully needled.

Ernest Thomson.


(5) Nordmann describes in detail a case of typical atrophic myotonia affecting particularly the lower part of the face, the thenar and hypothenar muscles, the flexors of the fingers and the long supinators. The eyes and fields of vision were in all respects normal under ordinary examination. Vision with correction was 6/5 and 6/4. The corneal microscope, however, revealed bilateral cataract. In the region of the anterior and posterior zones of disjunction was a layer of numerous punctiform grey opacities with intermingled red and green crystals ("cristaux rouges et verts"). Between this layer and the capsule of the lens was an absolutely clear layer. The points of importance emphasized by Nordmann are: (1) The presence of the particular type of lens
opacities visible only by the corneal microscope, and causing no interference with vision; (2) The cataracts were found in a patient of 31 years of age, and were typical of cataracts due to endocrine disturbance. In addition to the well recognized features of precocity, bilaterality and superficiality of the cataracts, it was observed that there was a notable lack of demarcation between the several layers of the lens. This feature is present, therefore, in all types of endocrine cataract, diabetic, tetanic and myotonic. It is suggested that this sign may possibly be found before the development of opacities in the lens. (3) The antero-posterior diameter of the lenses was less than normal. This is a further sign present in the three groups of endocrine disturbance.

**Humphrey Neame.**


(6) Scotti has made a number of experiments in which the lens was exposed to ultra-violet rays; in some, enucleated eyes were used; in some, the lens extracted from the eye, and in others the living animal. The changes noted differed in the various classes of experiment; the enucleated eyes showed opacity of the nuclear zone of the lens. The living animals showed changes in the ciliary and capsular epithelium, and opacities in the lens chiefly close under the capsule.

That the opacity found in enucleated eyes is really due to the ultra-violet rays is shown by the fact that the interposition of a sheet of glass to stop these rays, prevented the formation of any opacity.

**Harold Grimsdale.**

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**BOOK NOTICES**


The fourth volume of this large and extensive treatise on ophthalmology has now appeared, and follows the general lines adopted in its predecessors. The first part dealing with diseases of the conjunctiva, cornea, and sclera, has been contributed by Professor Schieck, of Würzburg. After dealing with the various types of infective conjunctivitis, in which are included concise and informative accounts of the bacteriology peculiar to each condition, the author adopts the somewhat novel and very useful arrangement