
Magnasco records in this paper the results of 110 ocular inoculations of rat-sarcoma in various parts of the eye. 31 of these inoculations were successful. His results were similar to those found by previous observers in other parts of the body, i.e., they were more successful in young rats and in warm weather. In rats inoculated in both eyes simultaneously no unfavourable reciprocity was observed. Hypodermic and intravitreal injections on the same eye showed no influence on the intraocular tumour of the large hypodermic one. Inoculation between the layers of the cornea produced a remarkable growth which spread between the layers and also extra-corneally with secondary deposits in the anterior chamber. In general, however, the cornea, although readily infiltrated after inoculation of the anterior chamber, was not susceptible to direct inoculation. Although the anterior chamber has not proved a very good place for inoculation, the tumours tend to grow along the iris, shifting it either forwards or backwards or even completely replacing it. The vitreous appears to be a more suitable site of inoculation, the tumours developing to a great extent and involving the whole of the globe. The retina is very resistant to tumour infiltration, the retinal elements never being replaced by the neoplasm. The choroid becomes infiltrated with sarcoma cells, and the lens becomes opaque. Retrobulbar inoculations are also usually successful, but the optic nerve is never invaded and the sclera is highly resistant. The paper is illustrated by numerous microphotographs which are reproduced with great beauty.

E. E. H.


Disturbance of adaptation has recently been added to the list of diseases of the eye that have been attributed by writers to the action of ultra-violet rays, and it was to test this point that...
Siegfried conducted a series of experiments, in which he studied the effect of the highly concentrated ultra-violet rays from a mercury-vapour lamp and the light of an ordinary electric bulb. It was found that with the ultra-violet lamp there is no appreciable diminution of adaptation even after 15 minutes' action on the macular area, while the light from an electric bulb, filtered and not further concentrated, reduces it considerably. He will not admit the objection that in these experiments the action of the ultra-violet rays was very short and temporary, while the results from chronic exposure to the rays might be perhaps reversed: the concentration of these rays and the length of exposure, he holds, were too great, and moreover the electric bulb, from which the ultra-violet rays had been almost completely eliminated, produced a marked diminution. The slight change caused by the mercury-lamp was probably mainly a fluorescence effect. This research confirms previous work by Vogt on the same subject.

Thos. Snowball.


(3) "Angor oculare," or in French "angoise oculaire" appears to be a general term for ocular angiospasm and particularly for spasm of the retinal arteries. Aubaret and Sédan after a short discussion of the mechanism of vascular spasm, in which they are unable to enlighten us very much on account of its extreme complexity, say that they themselves prefer to reserve the term "Angor oculare" for a certain "catégorie de faits," and the particular type which they have in mind is that in which the symptoms are analogous to those of angina pectoris. Whereas in the latter trouble the outstanding symptom is the imminence of cardiac stoppage, so in the former there is the sensation of the sudden loss of vision which provokes the feeling of anguish or despair. The sudden, more or less complete blindness, lasting for minutes or hours, is very rarely accompanied by frontal or orbital headache and is thus to be distinguished from ophthalmic migraine with which it is apt to be confused. Again, "The essential characters which distinguish angor oculare from other forms of angiospasm, particularly those of cortical origin, are the following: unilaterality is very common whereas bilaterality is constant in cortical cases; the blindness is incomplete as compared with the absolute blindness in cortical cases." The authors regard the condition of angor oculare as a primary affection and distinguish other forms which are secondary to, e.g., chronic glaucoma or retinal arteriosclerosis.
These secondary types they distinguish as "petite angoise oculaire." The authors ask "Do the subjects of repeated attacks of angor ocularis run the risk of developing definite retinal lesions?" They hold that Horniker in 1927 has established the fact that they do, in the long run, develop such lesions which consist of fine haemorrhagic and exudative lines at the posterior pole and especially at the macular region. The authors have something to say about immediate treatment by such drugs as amyl nitrite, nitrate of soda, trinitrine, etc., but their final paragraph is perhaps of more importance for it gives the advice to look carefully for the cause, especially an endogenous or exogenous intoxication, or, not to be forgotten, syphilis, either hereditary or acquired.

Ernest Thomson.


(4) Wilmer's paper opens with a brief historical survey of this condition in which he refers to Meller's statement in 1926 that tuberculosis is a very much more important cause of irido-cyclitis than is generally thought. In ordinary cases there can be no certainty of the exact locality of the lesion, but practical proof of the nature of the infection can be obtained by therapeutic use of tuberculin which, in Meller's clinic, is used in every case of irido-cyclitis. Löwenstein says much the same in connection with choroiditis which is only rarely associated with active pulmonary tuberculosis. Wilmer's series of cases comprises those which have usually passed the early and acute stages of disease in which the eyes have been already severely damaged and where the disease has proved itself resistant to ordinary treatment. In all the cases he surveys syphilis and focal infections have been excluded as possible causes. The percentage of cases in which a tuberculous aetiology was revealed is roughly 40. The diagnosis was made by the occurrence of a high degree of hypersensitivity to tuberculin. The cases may be grouped as follows:—

(1) Uveitis with mutton-fat keratic precipitates, sometimes synechiae, pupillary exudate (in severe cases), chorio-retinitis, disseminated or limited to the macular region. In this type there may or may not be other tuberculous foci. Two cases are quoted, both showing improvement under tuberculin therapy.

(2) The inflammation is confined to the posterior segment of the uvea. Vitreous opacities, if present, are fine and dustlike. There is usually a large yellowish white area of exudation, with haemorrhages and older, slightly pigmented, spots round it. In the later stages there is massive fibrosis. These cases require very careful
treatment with small doses of tuberculin; one is quoted in the text.

(3) Cases of recurrent haemorrhage into the vitreous in youthful patients, with subsequent retinitis proliferans, if untreated. The total number of these cases is not given; in all but one, however, the cause was proved to be tubercle.

The technique used by the author for diagnosis was: to give an intradermal injection of 1/10,000 mg., if this was negative 1/100 mg. was used and then 1/10 mg. For therapeutic purposes, the injections were made subcutaneously starting with 1/1,000,000 mg. of B.E. or O.T. and working the dose up gradually to 1 mg., or even more, according to whether there was any reaction. In his conclusions, the author suggests that the milder cases of ocular tuberculosis may be due to a strain of bacilli less virulent than those which cause phthisis but of sufficient virulence to cause a general tuberculous condition evidenced by pasty complexion, clammy extremities, low blood pressure, etc. As the occurrence of tuberculosis in the eye renders it more vulnerable to the attacks of other organisms, foci of sepsis should be carefully searched for and eradicated when found.

F. A. Williamson-Noble.


(6) Derby and Carvill’s cases comprise a group of 130 patients of which they were able to locate 63. The group included a large number of cases of severe phlyctenular disease, often associated with scleritis or sclerosing keratitis. No patient was under observation for a period of less than 10 years, and some had been seen for 20 years. The authors give an interesting summary of their work and the following are some of their conclusions:—Tuberculosis of the eye is a chronic disease which may be overcome for a time, but it is extremely likely to recur if the patient’s general resistance be lowered. Nearly 10 per cent. of the cases died from phthisis though none of them showed active lesions in the lungs when first seen, and all were living a careful life with regard to general hygiene, diet, etc. The average attack of anterior ocular tuberculosis is self-limited and recovery may occur in two to three months or not for a year. The length of the remission depends on the general health of the patient. The disease has, up to the present been regarded too lightly and it should be classed with the arrested case of pulmonary tuberculosis. Unless the resistance is maintained at a high level these patients are liable to a succession of local recurrences and to development of serious tuberculosis.

F. A. Williamson-Noble.
Berhausen, Oscar (Cincinnati, Ohio).—Tuberculin therapy in ocular tuberculosis. Arch. of Ophthal., November, 1928.

Berhausen recognises three stages in the development of tuberculosis. The primary consists in proliferation of the fixed connective tissue cells, with the production of epithelioid cells, and the subsequent production of giant cells and changes in the surrounding tissue which tend to isolate the tubercle. The second stage is that of generalisation of the infection, via the blood or lymph streams, with appearance of foci in distant parts—and is similar to a chronic bacteriaemia with anaphylactic symptoms. The tertiary stage is that in which immunity has been reached and the inflammatory process is less marked. In the eye these stages are exemplified as follows:—the first by a small nodule in the iris with a slight area of resorption, the second by diffuse iritis with acute toxic symptoms, and the third by torpid iritis with formation of glass-like nodules and precipitates. Cases in the second stage are best treated by rest and general measures, specific medication being reserved for those in the third stage. The commonest position for the primary lesion in ocular tuberculosis is in the peribronchial lymph glands, and 80 per cent. of cases show X-ray findings in the chest; a thorough physical examination is therefore imperative. With regard to diagnostic tests, the author seems to favour the stick reaction in which a drop of tuberculin is placed on the sterilised arm, and a sterile darning needle is used to introduce the tuberculin intracutaneously. Short histories are given of 17 cases treated with tuberculin, 10 of which showed both local and general improvement, and five a small degree of improvement. The patients who gave the best results were those who reacted in a general way by elevation of temperature and showed also some local reaction in the eye. Most of them were treated with B.E. or T.R.

F. A. Williamson-Noble.

BOOK NOTICES


This admirable account of the history and traditions of Moorfields Eye Hospital has laid all ophthalmologists under a debt of gratitude to the author. No one is better qualified to carry out the