CORRESPONDENCE

EYE DISEASES IN AFRICAN CHILDREN

To the Editorial Committee of the BRITISH JOURNAL OF OPHTHALMOLOGY

SIRS,—The comment of Rodger (1958) on the ocular manifestations of malnutrition in the West African child are a timely reminder that, not only in Africa but also in many other parts of the tropics, the blinding effects of dietary deficiency continue to be of great importance. However, his views on vitamin A deficiency cannot be allowed to pass unchallenged. That the status of Bitot's spot is still uncertain is exemplified on the one hand by Rodger's paper, where it is stated, although evidence is not given, that it is "irreversible" and unrelated to vitamin A deficiency, and on the other by the equally recent work of Roels, Debeir, and Trout (1958), also from Africa (Ruanda-Urundi), where a close correlation is claimed between Bitot's spots and serum carotene and vitamin A levels. In both papers photographs are reproduced of what the authors regard as typical Bitot's spots, and it would appear that they are talking about the same condition. They closely resemble the lesions I saw accompanied by xerosis conjunctivae in India in school-age children and in young adults, which were usually, but not always, responsive to prolonged vitamin A therapy.

Most mucous membrane and skin signs associated with defective diet have been shown to be non-specific and of multiple aetiology, and various kinds of local trauma also play a constant but ill-defined part. Such lesions of the conjunctiva are usually confined to or maximal in the interpalpebral fissure; for example, pigmentation, wrinkling, Bitot's spot, conjunctival injection, pinguecula, and pterygium, and in this unique area of the body, where transparent epithelial structures are exposed to both light and air, trauma and nutrient deficiency may be closely related. In my view, it would be as difficult to justify the decision of Debeir to take Bitot's spot as the sole clinical sign of vitamin A deficiency because it is "reputedly very specific" as it is to agree with Rodger on the "irreversible" nature (length of treatment not stated) of his admittedly "very few" cases. My own opinion, based upon personal experience of xerophthalmia over a number of years in South India, Indonesia, and East Africa, is that no single conjunctival change or group of changes can be regarded as being specific for vitamin A deficiency.

When one turns to the advanced stages, going by the names of xerophthalmia and keratomalacia, it has been repeatedly shown by others, and is also my own experience (McLaren, 1956), that the blinding corneal lesions of lack of vitamin A are most common in the young child and are manifestations of a deficiency which is advancing at a rapid tempo. Rodger refers to Blumenthal (1950), and by his description it appears that "spontaneous iris prolapse" ("S.I.P.") also occurs in West Africa, although his picture (Fig. 6) is not typical, and Blumenthal (Figs 2 and 3) are typical. In a subsequent paper, Blumenthal (1954) lists ten differences between keratomalacia and "S.I.P.". Having seen many cases of the former in Asia and Africa, and of the latter only in Africa, I too have no doubt that these are distinct conditions. That Blumenthal included in his seven clinical types some stages of trachoma and some end-results of trauma and secondary infection, for which he has been criticized in South Africa, should not detract from the value of his emphasis on "S.I.P." as a new, and as yet idiopathic, entity. In view of

Rodger's confusion of "S.I.P." as a feature of keratomalacia, it is not surprising that night blindness was infrequently associated.

Biomicroscope studies, which I have recently made and are soon to be published, show that the earliest corneal change of "S.I.P." starts in the endothelium and deep stroma, in contrast to vitamin A deficiency, which affects the epithelial cells above the basal cell layer. No close association with any particular deficiency has yet been demonstrated, and my cases in East Africa have included not only children with kwashiorkor and marasmus, but also otherwise healthy children and a young adult.

Yours faithfully,

D. S. McLAREN,

Medical Research Officer.

EAST AFRICAN INSTITUTE FOR MEDICAL RESEARCH,
P.O. Box 162,
MWANZA, TANGANYIKA.
July 24, 1958.

REFERENCES

- BLUMENTHAL, C. J. (1950). *S. Afr. med. J.*, **24**, 191.
—— (1954). *Ibid.*, **28**, 967.
McLAREN, D. S. (1956). *J. trop. Pediat.*, **2**, 135.
RODGER, F. C. (1958). *Brit. J. Ophthal.*, **42**, 336.
ROELS, O. A., DEBEIR, O., and TROUT, M. (1958). *Trop. geogr. Med.*, **10**, 77.

BOOK REVIEWS

Ocular Allergy. By F. H. THEODORE and A. SCHLOSSMAN. 1958. Pp. xviii + 420. Baillière, Tindall and Cox, London. (96s.)

Allergy is a relatively new concept in medicine, for the term was introduced only in 1906 by von Pirquet to indicate abnormal reactivity to repeated contacts with foreign material; his observations arose as a result of his study of the curious and sometimes alarming reactions which resulted from repeated injections of horse serum in the use of diphtheria antitoxin. From von Pirquet's work has grown an entire specialty in medicine with widely-spread frontiers, and nowhere has allergy been accepted as more widespread in its incidence and—more important—in its effects than in the eye. A whole host of diseases is ascribed to the mechanism of hypersensitivity—many types of conjunctivitis varying in nature from hay-fever or drug-allergies to spring catarrh or inflammations due to organisms or their products, as well as a large number of urticarial and eczematous conditions of the eye-lids. Among corneal diseases the most important conditions wherein allergy plays a dominant part are phlyctenular, disciform, and interstitial keratitis. A similar aetiology is generally associated with several types of scleritis and episcleritis. Apart from such conditions as sympathetic ophthalmitis and endophthalmitis phaco-anaphylactica, most authorities agree that many manifestations of uveitis are in greater or less degree associated with hypersensitivity of the tissue to micro-organisms or their products. Atopic cataract may well have an allergic basis, while the occurrence of neural allergies in the retina and optic nerve forms a more debatable problem.

There is no doubt that an assessment of this vast subject in which much of ophthalmology is contained is of great value. Such a task is difficult, calling for considerable practical wisdom and a capacity of critical appraisal. These qualities are shown in the present volume which covers the subject ably and exhaustively; it should form a most acceptable addition to any ophthalmological library.