NOTES ON OCULAR LEPROSY.

By ARTHUR NEVE, F.R.C.S.E.,
Joint Superintendent Kashmir State Leper Asylum.

THE eye is affected in 20 of the 80 lepers now in the Kashmir State Leper Asylum. As would be expected, the proportion is larger in the tubercular cases than in the anæsthetic. In tubercular cases the ocular affection is essentially one of infiltration, and in anæsthetic cases of injury from exposure. The extent and position of the lesion vary greatly. Among the present inmates the ocular manifestations may be classified as follows:

LIDS.

1. *The skin of the lids* is liable to the deposit of nodules just as that of other regions; these seldom attain any large size, and very seldom ulcerate. At present there are only 3 cases of marked tuberculous nodules.
2. *The margin of the lids* is occasionally affected, and there is atrophy of the ciliary follicles. In 3 cases this is complete, in 5 partial.
3. *Paralytic ectropion* is the characteristic eye lesion in anæsthetic leprosy. It is rather a drop of the lower lid than an eversion. It falls away from the eye and leaves it exposed. Owing to displacement of the lower punctum there is lachrymation. The exposed conjunctiva becomes irritated, and often there is ulceration of the lower edge of the cornea. At present there are 9 such cases in various stages.

CONJUNCTIVA.

1. *Conjunctivitis* frequently occurs in lepers, as in all Kashmiris, and there seems no special predisposition, except in those who have paralytic ectropion. Anæsthesia of the lids exposed to special danger from the bites of flies and mosquitoes, and to injury by foreign bodies.
2. *Granular conjunctivitis* is only represented by 2 cases—a small proportion for this country.
3. *Leprous nodules* appear in the conjunctiva as elsewhere, but we only have 3 primary cases. On close inspection it is seen that the deposit has extended from the deeper tissues. *Pterygium* is occasionally seen; there is 1 case now, it is not specific.

CORNEA.

1. *Keratitis* sometimes occurs, but is not specific, being usually due to traumatism. From the same cause we have
2. *Ulceration*, which is most frequent in the lower limbus. This is seldom deep or actively septic, and under treatment, especially by temporary closure of the lids, it readily heals. There are 2 such cases now.
3. *Infiltration*, which commences peripherally, usually in the sclerotic margin, and gradually extends more or less circumferentially. At the outset there may be a little dotted deposit of a yellow colour, possibly vascular. More often it grows as a distinct nodule, involving the sclerotic, cornea, and iris simultaneously. There is a tendency for both eyes to be somewhat symmetrically affected. There are now 8 such cases in the asylum. I regard this as the characteristic lesion of tubercular leprosy. As stated by Hansen and Looft, the inner margin of the cornea is seldom affected, while a low rampart is formed round the rest of the cornea. We now have one typical case of this condition. The infiltration is usually superficial to Descemet's membrane, and may be dissected off it. In one case where this was done a staphylococcal protrusion has resulted. The infiltration consists partly of the bacilli, but chiefly of cells in a state of brown granular degeneration.

IRIS.

In ocular leprosy the iris is frequently attacked. This is especially the case when infiltration has commenced in the corneal margin. Nodules form in the angle of the anterior chamber, which becomes partially obliterated by them. Less often the nodule may be single, but seldom on or near the edge of the iris. The whole tissue of the iris becomes softened by a chronic inflammatory process, and the deposit of lymph tends to occlude the pupil, causing permanent blindness. When the infiltration begins in the lower angle it closely resembles a hypopyon.

LENS.

I do not remember seeing any case of cataract consecutive on ocular leprosy.

DEEP STRUCTURES.

Deep-seated eye affections are rare in leprosy, and are always secondary to corneo-scleral lesions. I doubt whether nodules ever occur on the retina or choroid primarily. I have seen cases of general infiltration of the eyeball which might be called pseudo-glioma, and atrophy of the globe is, of course, met with as the result of suppuration. The sight as tested in sixty lepers, illiterate, without visible ocular disease, was good. The optic nerve is seldom or never the seat of leprosy deposit, but the infiltration spreads to the ciliary nerves from the corneo-scleral region, as also to the ora serrata of the retina (Pollock). Blindness is not as frequent in Kashmir from leprosy as appears to be the case elsewhere. There are only 13 blind eyes; of these, 2 were caused by small-pox, 2 are due to total pannus consecutive on trichiasis, 2 to perforating ulcers, 2 to glaucoma, and the rest to tubercular deposit and occlusion of the pupil.

ACCIDENTS AND INJURIES CAUSED BY
LIGHTNING.*

By OSCAR DUNSCOMBE-HONIBALL, M.D.,
President of the British Guiana Branch.

AFTER some introductory remarks, Dr. Dunscombe-Honiball proceeded:

The literature on the subject of injuries caused by lightning is extremely scanty. Holmes, in his *System of Surgery*, writing on accidents from lightning, says they are very rare at home (about 44 per annum in England, Bowdin), and that it had never fallen to his lot to witness immediately on their occurrence any which called for serious surgical treatment, and he goes on to say that it does not appear to have occurred to any of his countrymen whose experience of this form of injury in tropical climates may have been great to give to the profession any systematic account of the matter. As I have in my more than thirty years' tropical practice seen many cases both fatal and otherwise, I may possibly be excused for taking this somewhat overlooked subject as the text for my address. I am well aware that very little practical result can be looked for as the outcome of an address and discussion of such a subject. Those who die from lightning stroke die with awful suddenness, and for those who recover little beyond stimulation and the usual surgical treatment for injuries received seem to be required. But I will ask your kind indulgence if I do not appear to treat the subject in a very scientific and speculative mode, but rather give a plain account of the appearances and symptoms I have met with in my experience of lightning stroke, both *post mortem* and in those who have not succumbed to this injury. I have not, I regret, kept an exact account of all the cases that have come under my notice, but, roughly speaking, I should say I have had experience of upwards of a score, here and elsewhere. Fortunately, however, I have very accurate and extensive notes, both *post mortem* and clinical, of the last 11 cases coming under my notice, which have occurred within the last half dozen years. Possibly the best plan for me to pursue will be for me to briefly detail these cases, give *post-mortem* appearances and clinical histories, and then make some comments in general on the nature of the injuries.

The first group of cases—I say group of cases because 10 were struck at the same time—to which I wish to draw your attention occurred on November 28th, 1894, on Plantation, Windsor Forest, West Coast, Demerara. A party of male East Indians, to the number of 15, had sought shelter from a severe rainstorm in a small brash hut; in a second, without any warning—I am using the words of one of those present—a sharp blaze of light seemed to strike in, over, and through the hut, accompanied by a terrific thunderclap. All present were blinded for a second or two, but when they had recovered from their first fright and shock it was found that four of their number were insensible (two, as a matter of fact, were dead), and six others injured more or less. They were all brought to the Estates Hospital, where I happened to be at the time. On examination I found two dead, one recovering from insensibility, one still insensible, and six

* Presidential Address of the British Guiana Branch of the British Medical Association.