Extract from Current Literature.

(Indian Medical Gazette, April, 1932.) Dr. John Lowe reviews the present position of Leprosy in India, of which the following is an extract.

There is at present much confusion and doubt among medical men and among the lay public regarding the present position of leprosy work, the results of treatment and methods of prevention. Very sweeping statements have been made particularly in the lay press regarding the wonderful results of treatment and the possibility of eradicating leprosy by the methods of treatment and prevention that are now being used.

During recent years the organisation of leprosy work on the basis of treatment, often out-patient treatment, has brought under observation many cases of leprosy at a very early stage. A study of such cases has greatly increased our knowledge of the early signs and onset, and has modified our ideas on prognosis.

Some important facts concerning leprosy and its prognosis apart from treatment are here summarised.

(1) It is now generally agreed that the disease is acquired by contagion and is rarely if ever hereditary.

(2) The disease is not highly infectious and many people exposed to the

infection do not develop the disease. Instances are quite common of highly infective lepers living for many years in close contact with healthy people, the contacts remaining healthy. Infection of the contacts must have occurred but clinical leprosy did not develop.

(3) The disease shows a marked natural tendency towards healing and cases healed without treatment are now found to be quite common. The spontaneous healing may occur at any stage of the disease, especially in the early stage. We have seen dozens of cases with depigmented anæsthetic patches of very long standing with a history of no increase or decrease for ten or fifteen years and with no signs of active leprosy at the time of examination.

(4) Many cases of leprosy either show no lepra bacilli on examination, or else do not discharge any bacilli, so they are apparently non-infective.

(5) Leprosy is a disease of bad social and hygienic conditions.

(6) Strong healthy people living healthy lives, taking a good diet and living under good conditions rarely develop leprosy, and when they do they often get a mild form of it.

(7) Some cases of leprosy continue for many years with little evidence of increase or decrease and with little suffering.

(8) Most cases of active leprosy progress very slowly with little constitutional disturbance but with gradually increasing deformity and disability.

(9) Leprosy rarely causes death. Death if it occurs is practically always due to secondary infection or intercurrent disease.

Thus the new knowledge has shown that in India at any rate leprosy is as a rule not nearly as infectious, virulent, intractable and dreadful a disease as it was thought to be.

There is another fact which has been brought to light by this greater knowledge of leprosy in its earlier and slighter forms. Leprosy is found to be very much more prevalent than was ever imagined.

It is difficult to give statistical returns on an annual basis which reflect accurately the results of treatment. This is because the ordinary period of treatment necessary in the average case of leprosy is much more than one year. Only very early cases are likely to be arrested within one year, and consequently the more severe cases only appear in the annual returns year after year while the early cases only appear once. A leprosy hospital tends to get silted up with the very bad cases, while the early cases leave comparatively quickly. The annual statistics suffer accordingly.

Bacteriological Examination Before and After Treatment.—Bacteriological examination includes bacteriological examination of skin clips usually from the lobe of the ear, and bacteriological examination of the nasal mucous membrane. The latter is of little importance for diagnosis but is an index of the severity of the infection and of the infectivity of the patient.

Before Treatment.	
Showing bacilli in nasal mucous membrane and skin	309
Showing bacilli in the skin only	84
Showing no bacilli	71
After Treatment.	
Showing bacilli in nose and skin	88
Showing bacilli in skin only	240
Showing no bacilli	136

It will be seen that after treatment the nasal mucous membrane of most patients become negative, 221 out of 309. All these have not become negative during 1929. Some have become negative in previous years. The skin has become negative in a very much smaller number of cases, 65 out of 393, but all these 65 became negative during 1929. Most of these 65 have been slighter cases of skin leprosy (C1 and C2 stages). A few only in the C3 stage have after prolonged treatment become bacteriologically negative. This has been our general experience for several years. ***It is extremely difficult to render a C3 case bacteriologically negative. In many C3 cases, however, the disease becomes inactive*** but some bacilli persist. We have in this institution patients who have been under treatment for six, seven and eight years in whom

* Italics are our own.—EDITOR.

bacteriological examination still shows the lepra bacillus. In most of these cases the disease is practically, if not entirely, inactive and we think that these residual bacilli if few are not necessarily of much clinical importance. In about 100 cases still showing a few bacilli on examination, the disease appears to have been inactive for a year or more.

The results of treatment may be summarised as follows :—

(1) In almost every case the disease ceases to progress.

(2) In some cases (mostly early) the disease is arrested and there remain no bacilli on examination and no signs of activity.

(3) In more advanced cases which form the bulk of our patients, the progress of the disease is arrested, the existing lesions become less, the nasal discharge can be rendered free of bacilli, thus much diminishing the infectivity, and after prolonged treatment the disease apparently becomes inactive, although some acid-fast bacilli can be found in the skin.

Thus it appears that in early cases we can hope to render the disease inactive and possibly overcome the infection, but in most cases it is sounder medically to talk of " Controlling " the infection and arresting the disease rather than of eradicating it.

Our opinion is that special treatment is of very considerable value, but it is far from being completely satisfactory. It is painful, it needs to be given for a very long time, special training is necessary for those who are to administer it, and the results of treatment are so slow in showing themselves that many out-patients cease to attend for treatment.

The Organisation of Leprosy Work.

In India with its million or more cases of leprosy the voluntary system is the only possible one.

The propaganda element in this work is undoubtedly of great value. One of the great difficulties in leprosy work is the lack of any enlightened public opinion.

The survey element of the work is also of great value. Much valuable information has been gained about the prevalence of leprosy and the common types of leprosy, and information gathered in survey work may be of great value in the organisation of preventive work.

The treatment side of P.T.S. work is less satisfactory. The common experience is that, in the beginning, a large number of patients come for treatment, but when the survey is finished the number of patients tends to drop, many cease to attend altogether, and many others attend so irregularly that efficient treatment is difficult or impossible. We recently collected some statistics regarding the attendance of out-patients at clinics in India. It was found that the number of patients attending more or less regularly for six months treatment varied between 20 per cent. and 50 per cent. of the total. On an average the figure was about 30 per cent. In cities where patients do not have to travel far, where there are transport facilities, the figures tend to be higher. In backward rural areas they are lower. The percentage of patients attending for one year is usually considerably lower than 30 per cent.

Leprosy is a disease which needs prolonged treatment. In the earliest case at least one year's treatment is advisable and many cases need several years' treatment. The finding that on the average 70 per cent. of cases cease attendance in the first six months and that a still larger number fail to attend for one year is a serious one.

The reasons for this state of things are numerous, but one of the principal reasons is that, from the patient's point of view, our treatment is not good enough, and does not give the results he hopes for. We should not shut our eyes to this fact.

Other difficulties connected with out-patient clinics are the following :—

(1) That small clinics scattered over a wide area are difficult to organise and to run efficiently, and a sufficient standard of work in diagnosis and treatment is difficult to maintain. Laboratory work is often entirely neglected and the work suffers in consequence.

(2) That for efficient work the efforts of the different clinics need to be co-ordinated. This is often difficult.

(3) The segregation of infective cases in their homes is very rarely carried out.

(4) That many patients at certain times need far more careful treatment than can be given in an out-patient clinic, where the patients only attend once or twice a week.

In our opinion these difficulties will not be really overcome until we have a more efficient treatment. This can only come as the result of experimentation and research. In the meantime we must use such treatment as we have to the greatest advantage. Out-patient treatment must be the basis of the work, but we believe that it would gain greatly in efficiency if it were associated with in-patient work on a limited scale. In-patient leprosy work on a voluntary basis is carried on in various institutions in India, and in such work the difficulties encountered in out-patient work are lessened. The patients are segregated and remain under treatment as a rule for a much longer period than do out-patients. Special treatment can be given and patients can be seen every day if necessary. All necessary laboratory examinations can be made, and the regime, diet, &c., of patients can be supervised.

If our leprosy work in India is to be really effective it must be based on accurate knowledge obtained by really scientific observations made under good conditions in an area which is more or less typical of India as a whole. At present our knowledge is very incomplete and our attempts to deal with leprosy are based to some extent on pious hopes rather than on scientific facts. We know that we can benefit many patients by treatment. We hope, but we do not know, that in many cases the results of treatment are permanent. We hope, but we do not know, that treatment as given at present will in time reduce the incidence of leprosy. We know little about the epidemiology or the mode of transmission of leprosy.

We believe that for the future of leprosy work in India, it is most important that really intensive work in a limited area be undertaken and that for this purpose there be established at least one leprosy investigation centre in a suitable rural area. The main objects of such a centre would be investigation of the epidemiology of leprosy in the surrounding district of the efficacy of various forms of treatment, of the permanence of results of treatment, of the effect of treatment on the incidence of the disease, and of the efficacy of methods of prophylaxis. This would best be done by a combination of in-patient and out-patient work, propaganda and survey work, examination of contacts and re-examination of discharged patients, &c. Another important object would be the training of leprosy workers, especially in field work. At the end of one or two decades of such work efficiently carried out there should be available facts and statistics which should be of tremendous value in organising leprosy work in India as a whole.

Leprosy is one of the great problems of India intimately connected with most of India's other problems. It is a social and economic problem, not merely a medical one. The great predisposing causes of leprosy in India are poverty, ignorance, bad social and hygienic conditions, bad diet and debilitating disease. Leprosy will not finally disappear from India until these evils are mitigated, but it is greatly to be hoped that as the result of research work methods of prevention and treatment will be discovered which will bring leprosy more easily under control. In the meantime, however, even with our present limited knowledge we can do much.

Avoiding unreasoned optimism and pessimism, let us critically and scientifically study the facts and, realising the difficulties, do what we can to overcome them.