

## EDITORIAL

### 1. The Vellore Conference on Rehabilitation of Leprosy Patients

We are very glad to give a news item on this important conference, which we hope will whet the appetite for the full reports which no doubt the sponsors will make available in due course. This conference seems to have been one of those ideal symposia where the membership is kept low and each man is an expert in some relevant field. The sponsors are greatly to be congratulated on this conference. Dr. E. W. Price, F.R.C.S., has kindly provided the following brief information:

The success of modern leprosy treatment has brought a new optimism, which is reflected in the scope and the conclusions of the Scientific Conference on Rehabilitation in Leprosy, held in November 1960 in Vellore, Madras State, S. India.

The meeting was sponsored jointly by the World Health Organisation, the Leonard Wood Memorial, and the International Society for Rehabilitation of the Disabled; and was indebted to the Christian Medical College, Vellore for clinical and clerical facilities and generous hospitality. The sponsoring organisations were represented by Dr. J. GAY PRIETO (Chief of the Leprosy Section, W.H.O.), Mr. D. V. WILSON (Secretary-General of the International Society for the Disabled), and Dr. J. A. DOULL (Medical Director of the Leonard Wood Memorial) who was elected Chairman of the Scientific Meeting.

The participants in the Conference were Prof. Paul W. Brand (Orthopaedic Surgery), Dr. Margaret Brand (Eye Surgery), Dr. N. H. Antia (Plastic Surgery), Dr. J. A. Doull (Leonard Wood Memorial), Dr. E. Fritschi (Clinical Tutor in Orthopaedics), Prof. H. H. Gass (Dermatology), Dr. R. S. Guinto (Epidemiology), Dr. M. Itchi (Physical, Medicine and Rehabilitation), Dr. C. K. Job (Pathology and Leprosy Research), Dr. R. W. Mackie (Neurological Surgery), Dr. D. E. Paterson (Radiology), Dr. R. G. Pulvertaft (Orthopaedic Surgery), Dr. D. G. Riordan (Clinical Orthopaedic Surgery), Dr. R. V. Wardekar (Leprosy Control), Dr. G. Weddell (Anatomy), Dr. L. Zamudio (Orthopaedic Surgery), Dr. R. H. Bland (WHO, India), Dr. J. Gay Prieto (WHO Leprosy Section, Geneva). The participants included those with experience in leprosy, and also some without previous knowledge of the disease but whose expert knowledge in various scientific fields added greatly to the value of the meeting. It soon became evident that many of the problems discussed had been met in diseases other than leprosy and that experience gained elsewhere could be applied with profit.

*The objectives of the Meeting* were defined as follows: (1) To state the existing knowledge of the aetiology, prevention, and treat-

ment of disablement as found in leprosy patients; (2) to advise how present knowledge can best be applied in leprosy control, treatment, and rehabilitation programmes; (3) to recommend what further research studies should be undertaken. The size of the problem, and useful measures of rehabilitation suitable for areas of limited resources, were also considered.

In the discussion on the *extent of the problem*, it was realised that information was incomplete, but it appears that a world total of ten million cases of leprosy may be a conservative estimate, that probably not more than 20% are under treatment, and that as many as 25% of the total may have some physical disability. In view of the importance of having fairly accurate estimations if useful decisions are to be taken, it is urged that all workers should cooperate as far as possible in completing the WHO enquiry form on "Deformity in Leprosy" which was recently circulated.

The discussion on advances in *nerve pathology* drew attention to the recent advances emerging from the use of electron-microscopy:

The site of major damage in nerve lesions is known to be the basement membrane related to the Schwann cells, the melanocytes, and the basal layer made up of epidermal cells. As the pathology seems limited to the cell surface, it is suggested that some antibody-antigen reaction is damaging the cell, and that research should be directed to elucidating the character of this complex.

It has been possible to show that in leprosy patients with no loss of cutaneous sensibility, as many as 25% of nerve fibres to the skin may be damaged.

Attention was drawn to reports of benefit resulting from the use of an enzyme (chymo trypsin) during the course of a reaction in leprosy, and further experience should be gained with this technique. The orthopaedic specialists drew attention to the possibility that the site of the nerve lesions might be the expression of a "compression syndrome" and considered that the operation of nerve decompression might be indicated in such areas as the elbow (by anterior ulnar transposition), at the zygoma (by releasing fibrous bands), and at the carpal tunnel by dividing this structure. However, these manoeuvres should be carried out by those familiar with the problems of nerve compression.

At the session concerned with *physiotherapy and reconstructive surgery*, the meeting was unanimous in its opinion that standard methods of treatment are applicable to leprosy, and that results are at least as good as those following similar treatment for other paralytic diseases.

Because the paralyses of leprosy are well-defined and predictable as to extent, the use of a small repertoire of procedures can combat disability effectively. These will normally be carried out by specialist personnel, and the meeting prepared *a summary of the common*

*deformities and the methods of physiotherapy and surgery which prove successful.*

In endemic areas where facilities are limited, it is necessary to use medical auxiliary workers, specially trained in a limited number of manoeuvres, and a memorandum was also prepared detailing the various procedures which such an auxiliary should know if he is to give efficient treatment. It is desirable that these auxiliaries act in co-operation with a local orthopedic and plastic surgeon, or professional physiotherapist; but even this is not always possible, and then considerable improvement in the wellbeing of the patient can be achieved by such auxiliary personnel under the direction of the doctor or nursing sister in charge of the treatment.

The *bone lesions* in leprosy were described at length in a further session. The specific lesion of leprosy—the osteitis leprosa of the phalanges—can be healed completely and deformity prevented by immobilisation of the part in a functional position during periods of pain and swelling.

The major bone lesions are due to non-specific causes and occur in any disease with long-standing nerve damage; these include osteoporosis, pathological fracture, secondary infection of bone and joint, and the neuropathic joint of Charcot. The treatment of these lesions follows standard orthopedic methods.

The *deformities of the face* occupied one session. The importance of these lesions was emphasised by two ex-patients who addressed the meeting and who stated that, while they were very grateful for all that was done for their hands and feet, it was the appearance of their face that was their major anxiety.

Apart from the infiltration of skin in lepromatous disease, the deformities include collapse of the nose, loss of eyebrows, and lagophthalmos. It was agreed that collapse of the nose was due to non-specific destruction of the nasal framework by banal infection as a sequel of the lepromatous ulceration of the nasal mucosa. Collapse could be prevented if banal infection were controlled; but if it occurred, reconstruction is possible by standard procedures and is made easier by the fact that there is usually no skin loss. The replacement of eyebrows is an easy procedure and of considerable psychological value. Most important is the lagophthalmos which exposes the insensitive cornea to constant irritation. The surgical procedures to correct this are standard plastic procedures.

The simplest in an emergency is tarsorrhaphy; the most satisfactory is a temporalis musculo-fascial sling.

A session was given to *plantar ulceration* because of its frequency and the serious damage that may occur to the feet. The theories of causation were reviewed and it was agreed that the major cause appears to be mechanical and related to the strains of walking. The importance of treating the first ulcer was stressed, but it was better

still to prevent the first ulcer occurring. The signs of impending ulceration are obvious enough for auxiliary workers to recognise them, and it was noted that these workers could control the occurrence of plantar ulceration by systematic foot inspection and treatment in the pre-ulcerative stage. Simple ulceration is still treatable by auxiliaries, but major complications (including bone and joint infection, and the neuropathic joint of Charcot) are indications for specialised care. It was recognised that there was no problem in achieving the healing of a simple ulcer—the simplest method being rest in bed; but a walking plaster cast was almost as effective and avoided immobilisation of the patient.

Ulceration could be prevented in the pre-ulcerative stage by rigid-sole footwear, a soft insole, and an artificial means of providing the walking roll such as a rocker or a shaped sole. Similar treatment will forestall recurrence of a healed ulcer.

*Ocular damage* was discussed by ophthalmologists who emphasised that blindness as a complication of leprosy is largely avoidable. The conditions most likely to lead to blindness are severe lagophthalmos with resultant damage to the cornea, and the irido-kerato-scleral condition resulting from direct lepromatous infiltration or allergy or both. Iritis is the commonest single cause of blindness in leprosy and the importance of atropine instillation was underlined. The value of preventive treatment and the recognition of such early signs as reduced vision was stressed and auxiliary workers should be trained in this.

An important session was given to the *means to prevent deformities*, and the educational problems involved. Most patients should be diagnosed and their disability treated without any help other than is available locally, and without admission to any institution. All workers in leprosy should be trained to look for early signs of damage to limbs, nose, and eye in the knowledge that, with early diagnosis, prevention of deformity is made easy and fully successful treatment is made likely.

In several sessions of the Conference the statement was repeated that the care needed by patients recovering from leprosy was similar to that of patients recovering from other chronic nerve lesions. It is both convenient and desirable that such treatment should be undertaken alongside that of other patients in the departments of general hospitals. The prejudice against leprosy patients in some areas was recognised, and that this may hinder the desired integration. There is no scientific foundation for this fear in non-bacilliferous leprosy patients, but the fear exists among doctors as well as among the public. Enterprising and widespread propaganda is needed to combat this mistaken belief, and efforts made to encourage the integration of leprosy rehabilitation into the general medical rehabilitation service. Nevertheless, it is clear that because of the size of the prob-

lem and of special local conditions, this ideal may not be attainable immediately. Steps should be taken to encourage reconstructive surgeons and professional physiotherapists, to be aware of the large and satisfying opportunities that exist in helping to restore these patients to their place in society.

The *general conclusion of the Conference* was that although some deformities formed still an unsolved problem (notably those resulting from nerve damage during acute reaction) most of the disabilities of leprosy were preventable or, when they occurred, treatable. Statements accepted by the Meeting included the following:

“Facial deformities are to a large extent preventable. All lend themselves readily to reconstructive surgery”; “It can be stated that blindness from leprosy should be a thing of the past”; “It is emphasised that if our present knowledge is properly applied, plantar ulceration should not occur”; “The use of a small number of procedures can restore severely disabled hands to normal appearance and to activity”.

The above findings should bring a message of hope and encouragement to all leprosy workers and their patients; there is still the task of spreading this knowledge to the vast areas in which the disease exists and to the millions of people who are affected. This problem is now being tackled by the organisers of the Conference.

## **2. Increase in Price of Leprosy Review**

For some time we have been aware that the previous current price of the REVIEW (3s. 6d. per copy and 15s. 0d. per annum) has been too tiny a proportion of the cost of the REVIEW, and many subscribers have even told us so. The constantly rising costs have at last impelled us to action, and from now on we beg to inform all our subscribers that the price will be 5s. 0d. per copy plus postage and £1 per annum post free. We trust that this very modest increase will not cause too much alarm and despondency but will be accepted as a necessary step in view of the heavy modern costs.

## **3. The Classification of Leprosy**

This subject is a hardy perennial, for the simple reason that full agreement has not yet been reached. We direct attention to the sensible paper on p. 74 by Dr. R. Chaussinaud of Paris.

## **4. The New Etisul Liquid Formula**

A new step forward with this drug has been the issue of a liquid preparation, and Dr. S. G. Browne reports on an acceptability trial of it on pp. 83—84. As regards the practical usefulness of Etisul, and of DPT (Ciba—1906) we draw attention to comments on them in the Research Reports (in this issue, pp. 121—123) of the Colonial

Medical Research Committee and the Annual Report of the East African Leprosy Research Centre.

### **5. Correction**

Dr. D. A. Baird, O.B.E., of Kuching, kindly points out that there is an error in the population figure for Sarawak given on page 6 of the January *Leprosy Review*. The correct figure should be 750,000.