CLASSIFICATION

15 NOVEMBER, 1958

9.15–12.30

Chairman: PROF. K. KITAMURA

Rapporteur: DR. R. G. COCHRANE

The Chairman said that he had replaced Dr. Arnold as Chairman of the Panel and Dr. Dharmendra had been on the committee.

PROF. K. KITAMURA: (Japan)

The Japanese System of Classification

He summarized the Madrid Classification and its main features Now he would like to describe the Japanese classification. It is simple, There are two types, LM and TM and two subtypes, LN and TN. and stages p, r and q.

Type L has bacilli, globi, lepra cells, thickened skin, loss of eyebrows, lepromin test negative.

TM or tuberculoid macular has the macular hyperaemic lesions: no bacilli: epithelioid and lymphocytic and giant cells: positive lepromin test. Lesions are hypopigmented and anaesthetic.

TN is tuberculoid neural (polyneuritic). There is a *group* as well, A, including atypical cases which do not clearly belong to the other types. The stages are: *progressive*, *retrogressive* or *quiescent*. The atypical group contains cases which under observation may be moved into one of the more definite groups.

DR. R. G. COCHRANE: (U.K.)

A critical appraisal of the classification of leprosy

He reviewed the history of reviews of classification since Manila. A classification acceptable to all should be possible. It should be simple and clear and take histological and all factors into consideration. He thought that the Indian classification should be accepted as a good basis. It is simple and logical. It divides all cases into *Lepromatous* and *Non-Lepromatous*. It can include all clinical features of leprosy. We should, like them, use 'macule' in its true sense as a flat lesion. Borderline and similar lesions are included, and maculo-anaesthetic and neuritic leprosy. In the former there is some loss of skin sensation, and the lesions are not raised, so it is truly maculo-anaesthetic. The lepromin test is only of value if negative or strongly positive. In histology the picture also should be kept clear. There is a special place for the neuritic lesions. The histology of these is more often dimorphous. The borderline group is a phase through which all leprosy passes. *M. leprae* first causes a simple inflammatory response which leads to a definite response (tuber-

culoid leprosy), or to a transformation (through borderline to lepromatous). Reactional tuberculoid is a true borderline lesion. Clinical and histological and immunological knowledge is all needed for classification.

DR. DHARMENDRA: (India)

Classification of Leprosy in India

The Indian Association of Leprologists has evolved a system which I present to this Congress for consideration and approval. I agree there are no unsurmountable difficulties in reaching an agreed system of classification. The chief difficulty lies in choosing the original terms and in expressing the process of evolution of the disease.

We think that the basis should be clinico-bacteriological. Next, histology and immunology should be brought in. Next, the system should have a minimum number of classes.

Next the system should be simple enough for the field workers yet contain room for refinements by experts. Re the Madrid Classification we found two discrepancies (1) the flat macule of leprosy, (2) polyneuritis without clinically being tuberculoid (having tubercles). In Madrid the polyneuritic forms are split up and put in either lepromatous or tuberculoid type. We solved this problem by forming two more classes, the maculo-anaesthetic and the neuritic. Dr. Wade has helped in this synthesis. We have thus six forms.

Discussion

DR. GAY PRIETO: "We suggest the structure can have a scaffolding and we need not insist too much on retaining the scaffolding. Leprosy is a living and changing disease. The instability of certain forms prevents a rigid classification. The borderline stage is one of the fluid concepts. I find Cochrane's borderline cases exist but we name it differently, as an evolutionary phase to lepromatous. Change the other way is rare. Indeterminate is a useful term, because it means we reserve classification. Maculoanaesthetic types are not always macular; some have papules. The ideas join us, the words separate us. But I do not accept the positive Mitsuda in lepromatous reaction as described by Kitamura: it is perhaps an isolated isomorphic phenomenon."

DR. K. R. CHATTERJEE: "The Indian workers start with defining the clinical groups, and by clinical features define the main groups as we see them. Clinical signs of lepromatous and non-lepromatous are sufficiently clear.

"In Pondicherry I found over 2,800 cases in a recent survey, of which lepromatous were 12.2%. Polyneuritis was 4.3%, borderline 0.2%. For a field worker clinical findings are all-important, and the Indian Classification works in practice. Then we go from the field to the laboratory, as I did, and I find that even there the Indian Classification works, and can contain refinements born of histology and immunology in the existing frame. The histology fits in quite well."

DR. BECHELLI: "I agree with Cochrane that macules are not elevated. The atypical group of Kitamura contains many typical types. We do not get positivation of lepromatous leprosy lepromin tests, as in Japan. I agree the classification must be clinical in the first place but do not agree that it should not be scientific as well. We must use all knowledge in any scheme of classification: it must always be scientific. I disagree with Cochrane that Mitsuda strong positives or negatives alone are significant: a mild positive does mean something. 'Macular tuberculoid' term is perfectly feasible. Elevation of a macule is a secondary feature and can apply to a macule or anything else. I do not like the term 'maculo-anaesthetic' but can understand it. Teaching of the existing classification presents no real difficulties."

DR. H. W. WADE: "I endorse Dr. Gay Prieto that leprosy is in flux: we define the case as it is today. There is a broad spectrum. There is a place for every case in it. Every case should be classified differently. I endorse Cochrane's insistence on using 'macule' for a simple flat lesion, though in the histology I disagree with Bechelli. Experts with all facilities have a responsibility of extreme accuracy, but on the field there is plenty of latitude. The truth is that histology is absolutely essential to placing certain macular lesions. In listening to the discussion I am confused by running indeterminate and borderline together: the indeterminate group has its own features, the simple macule which may go one way or another. I also am at sea in the 'dimorphous polyneuritic lesion'. Dr. Cochrane please explain what a clinician should see in a dimorphous lesion."

DR. AZULAY: "I agree with Cochrane, Dharmendra and Chatterjee in what they said in their opening remarks. But enough discussion has not been given to this matter. I want to be on the Committee on the next Congress and I am sure we shall reach agreement. The Latin-American point of view this time has been neglected. Our classification was based on clinical as well as pathology and bacteriology and immunology and we feel it is logical and sound. Our classification works perfectly well clinically in the field. We should bring patients or slides of patients to the next discussion.

"The main disagreement this time is on 'maculo-anaesthetic' and 'polyneuritic' but they are already in our classification under another name. We use day to day histological checks. I admit the polyneuritic does create difficulty. In Brazil we do find it can be either part of tuberculoid or lepromatous leprosy. I must add a Mitsuda positive can exist in a lepromatous case and I have seen many such cases. It is a real fact."

Intermission of 15 minutes at 10.45 a.m.

I. TAJIRI

DR. J. TOJIRI (Japan):

On Acute Infiltration of the lepromatous type of leprosy

This is an acute infiltration which emerges after a patient has been a long time in the resorption stage in lepromatous leprosy. It is one of the several reaction types and should be separated from them. It is not the 'Akuter schub' of tuberculoid leprosy, but something like that occurs in lepromatous leprosy. Nor is it erythema nodosum leprosum. Acute infiltration has an exanthem with a remittent fever of 37° to 39°C. The eruption is macular or papular (like erysipelas), and there may be anaesthesia. There is a moderate lymphocytosis. Bacilli are much fewer than in lepromatous nodules: the Mitsuda is negative but turns to positive soon after, or even when the eruption is present. The reaction may convert to negative later but many remain positive. Histologically the picture is the same as tuberculoid macular with some lepromatous features: both lepra cells and giant cells may be seen and epithelioid cells. The prognosis is good for those whose Mitsuda becomes positive, so the phenomenon must be due to a rise in immunity state of the patient.

Discussion

DR. ANDRADE (Mexico): "Changes occur in classification every five years, depending on where the Congress is held. Statistical analysis is thereby made difficult, and this should be borne in mind. The local national element thus goes against the fact that leprosy is one single international disease. We should be cautious."

DR. M. C. ESTRADA (Mexico): "We must remember the two polar types. Remember that we are dealing with individuals, not diseases. Make room for

many variations and keep an open mind. In Mexico we take smears often, and do not like the idea of pure neuritic types. Remember the factor of varying resistance. Dimorphous cases may contain a large tuberculoid element."

DR. HIDAKO (Japan): "Reactions in tuberculoid leprosy lead to improvement. Reactions in lepromatous leprosy may not lead to improvement, which in any case is slight. There is a whole involvement of body organs and tissues in many reactions. Sarcoidosis resembles tuberculoid reaction in leprosy, clinically and in the laboratory. There is an epithelioid cell granuloma. I base a whole system of classification of leprosy on these reactive states."

DR. M. NISHIURA (Japan): "Madrid Classification of leprosy has a certain weak point from the theoretical point of view. That system is solely based on the different attitudes of phagocytes towards the invasion of leprosy bacilli. But there are two other cell kinds which have an important relationship with leprosy bacilli. And they are the 'spinal ganglion cell' including axon and 'Schwann cell'. Certainly their behaviour towards leprosy bacilli differs considerably from that of phagocytes. I would like to ask all members of ILA here present now. Is there any difference of the cellular resistance of spinal ganglion cell and Schwann cell in different types of leprosy? I think these points should be studied vigorously."

DR. BARBA RUBIO (Mexico): "In all Congresses there is most debate on Classification, because we use different words. We all agree on the fact of lepromatous and the other polar type (tuberculoid). The trouble arises over the case which shades between.

"We tend to make many groups of these. A special committee of leprologists should be made to visit all countries and formulate an agreed consensus on classification."

DR. VENKATESWARA: " In India the flat hypopigmented macule is a reality. Dr. Cochrane's idea of all leprosy being borderline in origin gives us something to think about."

DR. MORGADO (Mozambique): "In Mozambique we know the Madrid Classification and have no difficulties with it, even in the jungle. It works, why change it? It is practical and quite scientific."

DR. CAP (Congo Belge): "I plead to maintain the existing classification. It suits clinical features, and with us our physicians are not leprologists. We do not want confusion for them."

DR. MARSHALL (Okinawa): "One cannot reconcile all these classifications. We need a practical one for public health purposes."

DR. BONNIOL (Madagascar): "Simplification of classification is important in under-developed countries."

DR. A. W. F. RUTGERS (Indonesia): "I agree with Dr. Cap: We want to maintain the existing classification. We give the name tuberculoid to both flat macules and elevated lesions. The benign group. I want to preserve that."

PROF. K. KITAMURA (Japan): "The term 'macule' or 'macula' means skin lesion only with change in skin colouring (in dermatology). But such maculae can change and show other features, in leprosy as in dermatology, such as erythema or elevation. I thing we should use the word, but conditionally."

DR. R. G. COCHRANE: "There are many points to answer. I take a few—

"1. We are trying to retain the Madrid Classification as far as possible.

"2. We must adopt Dr. Azulay's suggestion of sitting down together with slides, but in the meantime we need a base-line.

"3. Dimorphous leprosy is to me a *zone* of leprosy which covers lesions which look like tuberculoid as defined in Madrid: in histology the subepidermal zone is not free; but such lesions are not stable, but in a state of flux. True tuberculoid is rare, but the commonest is this whole spectrum of dimorphous leprosy.

"4. The Schwann cell deserves closer study. Dr. Weddell has already begun this. *M. leprae* is seldom seen in spinal ganglia because there are few Schwann cells there."

DR. DHARMENDRA: "We do not want frequent changes in classification. Yet that is just what we have been doing. Change from tuberculoid to leproma is a concept too vague to fit into practical experience: it does not happen. I insist on basic clinical criteria but that does not rule out the laboratory being used."