

Field Workers' Forum

A PRACTICAL CLASSIFICATION OF LEPROSY FOR FIELD WORKERS

In the recent past there has been much discussion among Indian leprologists on the need to review the Indian classification of leprosy and on the form the new classification should take. There is a body of opinion in India that the Ridley–Jopling classification,¹ though valuable to immunologists and research workers, is unsuitable for field workers; for example, Dharmendra² complains that 'all clinical forms of leprosy cannot be fitted into it', and Desikan³ writes 'it is scientifically sound, but cannot be adopted by field workers'. As regards Dharmendra's criticism I am satisfied that all clinical forms *can* be fitted into it if we exclude indeterminate leprosy, a transient form which can only very rarely be proved,

Table 1. A classification of leprosy for field workers (based on the Ridley–Jopling classification)

Observation or test	Type of leprosy			
	TT	BT	BB–BL	LL
Number of skin lesions	Single usually	Single or few	Several or many	Very many
Size of lesions	Variable	Variable	Variable	Small
Surface of lesions	Very dry, sometimes scaly	Dry	Shiny	Shiny
Hair growth in lesions	Absent	Moderately diminished	Slightly diminished	Not affected
Sensation of lesions (not face)	Completely lost	Moderate–marked loss	Slight–moderate loss	No loss
AFB in smears from lesions	Nil	Nil or scanty	Several–many	Many (plus globi)
AFB in noseblows or in nasal scrapings	Nil	Nil	Nil (scanty rarely)	Many (plus globi)
Lepromin test	Strongly positive (+++)	Weakly positive (+ or ++)	Negative	Negative

This scheme applies whether skin lesions are flat (macules) or thickened (plaques). If you find a single macule, lighter in colour than the surrounding skin (in a dark-skinned patient), with normal sensation and no AFB, refer the patient to the Medical Officer in case the diagnosis is indeterminate leprosy. Do likewise if the patient has one or more thickened nerves but no skin lesions, in case the diagnosis is pure neural leprosy. AFB = acid-fast bacilli. TT = tuberculoid. BT = borderline-tuberculoid. BB–BL = mid-borderline and borderline-lepromatous. LL = lepromatous.

and as regards Desikan's comment the Ridley–Jopling classification can, with one minor modification, be easily understood and used by field workers. The modification involves not giving a separate description to mid-borderline (BB) leprosy but including it with borderline-lepromatous (BL) leprosy as these 2 groups have skin lesions which are not easily differentiated clinically, acid-fast bacilli (AFB) are present in skin lesions, and both are negative on lepromin testing – *see* Table 1. On the vexed subject of indeterminate leprosy – a type of

leprosy which appears prominently in Indian and South American classifications – my opinion is that it has no place in a classification for field workers (just as Dr Ridley and I excluded it when we drew up our classification). What field workers need to know about it is that it presents, usually in children, as a single hypopigmented flat lesion (macule) which may be self-healing, that they will not be able to demonstrate sensory impairment in the lesion, nor will they find AFB in it, and therefore it would be dangerous for them to make a diagnosis of leprosy; the patient should be referred to the Medical Officer. Similarly, pure leprosy can be excluded from a classification for field workers on the grounds that there are no skin lesions, and a good deal of experience is required to identify thickened nerves with certainty, but they should suspect it if the thickened nerve feels harder and stiffer than the nerve on the opposite side, or if its surface feels irregular, especially if there is associated evidence of nerve damage in the form of anaesthesia with or without muscle weakness or wasting. Such cases should be referred to the Medical Officer. However, these pure neural cases can be readily included in the Ridley–Jopling classification with the help of a lepromin test and a nerve biopsy. I have deliberately included a lepromin test in my classification for field workers, for it gives great help in classification, it is easy to carry out and interpret and increasing quantities of lepromin are likely to become available, thanks to the countless millions of leprosy bacilli supplied by infected armadillos.

References

- ¹ Ridley DS, Jopling WH. Classification of leprosy according to immunity: a five-group system. *Int J Lepr*, 1966, 34, 255.
- ² Dharmendra. Indian classification of leprosy – need for a review. *Lepr India*, 1980, 52, 192.
- ³ Desikan KV. A proposal for concensus classification of leprosy. *Concensus Conference on Classification of Leprosy*, Bombay, November 29, 1980.

W H JOPLING

INFORMATION CONCERNING AUDIO-VISUAL LOAN PROGRAMME OF NATIONAL HANSEN'S DISEASE CENTER, CARVILLE, LOUISIANA

We gratefully acknowledge permission to publish the following information about audio-visual teaching and learning material from Carville, recently reviewed from the Director of Education and Training, Dr Richard O'Connor.

A primary function of the National Hansen's Disease Center, Carville, Louisiana, is to promote an increased awareness of Hansen's disease among the medical community. Accordingly, the Center has instituted an audio-visual loan programme by which instructional materials produced for in-house use may be loaned to other medical and educational institutions for teaching purposes. Materials are loaned at no cost for a 2-week period. A list of materials available for loan is attached.

Further information concerning this programme, as well as availability of other training and educational material in Hansen's disease, may be obtained by contacting:

Director of Education and Training, National Hansen's Disease Center, Carville, Louisiana 70721, (504) 641-7771 Ext. 281 (FTS) 687-0205

A. 35 mm Slide Series (Typescripts Included)

CARE OF THE HAND IN LEPROSY

A set of 57 slides developed by Ms Helen Ramsammy, Chief Occupational Therapist at Carville. The series focuses on the need to adapt tools, cooking utensils and other objects in

everyday use to protect persons with insensitive hands from injury. Illustrations are also provided of proper splinting techniques and other procedures used by professional health-care specialists in leprosy.

CLINICAL ASPECTS OF LEPROSY

This set of 42 slides has been developed at Carville to visualize an introductory lecture on leprosy for medical students and other health professional personnel attending 1-day seminars. The accompanying script is lengthy and should be reviewed thoroughly by the instructor before presenting the slides.

GENERAL CONCEPTS IN HANSEN'S DISEASE

A set of 40 slides and typescript depicting various skin lesions and other manifestations of leprosy. Slides of the Carville facility and various research activities in leprosy are included. The slides are in no particular order and should be integrated individually into other slide presentations.

HISTOPATHOLOGICAL ASPECTS OF LEPROSY

This series of 48 teaching slides and typescript was developed by Dr Richard Mansfield and is intended to provide an overview of histopathological concepts important in the diagnosis of leprosy.

OPHTHALMOLOGICAL ASPECTS OF LEPROSY

The series of 53 slides on eye care in leprosy has been developed by Dr Margaret Brand to illustrate her lecture to resident dermatologists attending Carville 2-day seminars. It is quite specific in content and should be used only by those already quite familiar with fundamental concepts in leprosy.

PRESCRIPTION FOOTWEAR

This set of 50 slides is designed to acquaint persons with methods involved in the fabrication of prescription footwear.

SKIN SMEAR TECHNIQUES

This set of 37 slides demonstrates the procedure for obtaining skin smears, staining slides and microscopic examination of skin smears for leprosy bacilli.

B. Instructional Television Programmes (Available in ¾" U-matic or ½" Beta formats)

ARMADILLO RESEARCH AT CARVILLE – UPDATE (19 min., colour, 1978, English and Spanish). Programme features facets of armadillo research – facilities, contamination precautions, autopsy, lab procedures. Narrated by Dr Waldemar Kirchheimer, Chief, Lab Research Branch.

CARE OF THE INSENSITIVE FOOT (17 min., colour, 1978, English and Spanish). Programme deals with methods of care for insensitive feet. Visually demonstrates evaluation and management procedures utilized by Physical Therapy Department.

CARE OF THE INSENSITIVE HAND (22 min., colour, Oct. 1979, English and Spanish). Programme visually demonstrates recognition signs, evaluation methods and management practices utilized in care of the insensitive hand by Occupational Therapy Department.

DIAGNOSIS OF HANSEN'S DISEASE (16 min., colour, 1977, English and Spanish). Discusses signs, symptoms and areas of involvement. Emphasizes diagnostic techniques. Shows clinical manifestations and presents differential diagnosis aspects.

EFFECTS OF MECHANICAL STRESS (46 min, colour, 1977). Discusses and illustrates 4 types of force destructive to insensitive foot. Research and thermographic studies shown. Lecture by Dr Paul W Brand, Chief, Rehabilitation Branch.

INTERNATIONAL SEMINAR – 1980 (14 min., colour, 1980) Programme features activities and comments of participants during Public Health Service–American Leprosy Mission International Seminar held at the National Hansen's Disease Center, Carville, Louisiana, April, 1980.

REHABILITATION IN HANSEN'S DISEASE (60 min., colour, 1976) Programme illustrates disease processes and associated aspects of physical rehabilitation. Programme taped during lecture to Tulane medical students by Paul W Brand, FRCS, Chief, Rehabilitation Branch.

PRESSURE ASSESSMENT METHODS (13 min., colour, 1977, English and Spanish). Programme demonstrates procedures to be followed in conducting: 1. The Harris Mat Test. 2. Slipper Sock Test. Tests are used for evaluation of uneven force distribution and pressure on insensitive feet.

SKIN SMEAR TECHNIQUES (20 min., colour, 1980). Programme features laboratory technique unique to Hansen's Disease, used for diagnostic confirmation, classification and treatment response. Includes patient selection, skin scraping, slide staining and interpretation, i.e. morphological and bacteriological index readings.

SO, YOU HAVE HANSEN'S DISEASE (44 min, colour, 1979, English and Spanish). Basic patient education/orientation programme for newly diagnosed HD patients at Carville. Presents medical orientation by Carville staff members and a video tour of activities and services for Carville patients.

THE EYE IN HANSEN'S DISEASE (40 min., colour, 1977). Illustrates slide presentation by Dr Margaret Brand, Chief, of the Ophthalmology Department, on common eye problems in Hansen's disease, and their management. Programme stresses preventive aspects of eye care in Hansen's disease.

THE TOTAL CONTACT CAST (17 min., colour, 1978, English). Practical demonstration of plaster-casting technique used at Carville. Contact cast enables patient with plantar ulcer to be ambulatory and promotes healing of ulcer.

TREATMENT OF HANSEN'S DISEASE (16 min., colour, 1977, English and Spanish). Discusses management of uncomplicated Hansen's disease. Outlines basic drug choices, treatment regimens, efficacy measurements, drug resistance problems and research efforts.

VISITOR'S INTRODUCTION TO HANSEN'S DISEASE (9 min., colour, 1976, English and Spanish). A non-medical orientation to Hansen's disease for Carville visitors. Programme cites several common misconceptions about the disease and provides general descriptive information about contemporary management techniques.

C. Audiotapes

CLINICAL ASPECTS (60 min., 1980). Lecture by Robert R Jacobson, MD, PhD, Chief, Clinical Branch.

TREATMENT OF UNCOMPLICATED LEPROSY (60 min., 1980). Lecture by Robert R Jacobson, MD, PhD, Chief, Clinical Branch.

PREGNANCY IN LEPROSY: EFFECTS ON MOTHER AND CHILD (60 min., 1980). Lecture by Dr ME Duncan, National Institute for Medical Research, London, England.

MICROBIOLOGY OF LEPROSY (60 min., 1980). Lecture by EJ Shannon, PhD, Immunologist, Pharmacology Research Department.

SPECTRUM OF LEPROSY (60 min., 1980). Lecture by Roy E Pflatzgraff, MD, Garkida Hospitals, NE State, Nigeria.

RECENT PROGRESS IN BIOMEDICAL LEPROSY RESEARCH (60 min., 1980). Lecture by WF Kirchheimer, MD, PhD, Chief, Laboratory Research Branch.

WHO TROPICAL DISEASE RESEARCH AND TRAINING PROGRAM (60 min., 1980). Lecture by Barnett L Cline, MD, PhD, Tropical Medicine Tulane University, New Orleans, LA.

REHABILITATION CONCEPTS IN LEPROSY (60 min., 1980). Lecture by Paul W Brand, FRCS, Chief, Rehabilitation Branch.

CARE OF THE EYE (60 min., 1980). Lecture by Margaret Brand, MB, BS, Chief, Ophthalmology Department.

REACTIONS AND THEIR TREATMENT (60 min., 1980). Lecture by Robert C Hastings, MD, PhD, Chief, Pharmacology Research Department.

IMMUNOLOGICAL RESEARCH (60 min., 1980). Lecture by Robert C Hastings, MD, PhD, Chief, Pharmacology Research Department.

PROSPECTS FOR LEPROSY CONTROL IN THE NEXT DECADE (60 min., 1980). Lecture by Robert R Jacobson, MD, PhD, Chief, Clinical Branch.

DERMATOLOGICAL ASPECTS (60 min., 1980). Lecture by SL Moschella, MD, Lahey Clinic, Boston, Massachusetts.

THE INTERNATIONAL PROBLEM OF HANSEN'S DISEASE (60 min., 1980). Lecture by W Felton Ross, MB, Medical Director, American Leprosy Mission.

IMPACT OF INSENSITIVITY (60 min., 1980). Lecture by Paul W Brand, FRCS, Chief, Rehabilitation Branch.

FUNCTIONAL ANATOMY OF THE FOOT/ANKLE COMPLEX (60 min., 1980). Lecture by Thomas McPoil, Jr, RPT.

PATHOMECHANICS OF SOFT TISSUE (60 min., 1980). Lecture by Paul W Brand, FRCS, Chief, Rehabilitation Branch.

MATERIALS USED IN FOOT MANAGEMENT (60 min., 1980). Lecture by Ronald S Brocato, RPT.

BIOMECHANICAL CONSIDERATIONS OF THE FOREFOOT TO REARFOOT DURING GAIT (60 min., 1980). Lecture by William C Coleman, DPM.

ANATOMY OF THE SHOE (60 min., 1980). Lecture by John O McMahan, CPed.

SHOE MODIFICATION TECHNIQUE FOR THE HYPO AND HYPERSENSITIVE (60 min., 1980). Lecture by Freddie Childress, CPed and John O McMahan, CPed.

ROCKER BOTTOM vs ROLL-OVER TO MODIFICATION IN SHOE DESIGN (ANKLE ON THE FLOOR CONCEPT) (60 min., 1980). Lecture by Paul W Brand, FRCS, Chief, Rehabilitation Branch.