BOOK REVIEWS

International Cooperative Team for Evaluating Serological Tests in Leprosy. *A Trial to Compare Serodiagnostic Tests for Leprosy.* Tokyo: Sasakawa Memorial Health Foundation, 1988, 44 pp., softbound.

Six kinds of serological tests for leprosy, i.e., fluorescent leprosy antibody absorption test (FT), enzyme-linked immunosorbent assay (ELISA) using synthetic disaccharide-BSA antigen (NDH) or synthetic trisaccharide-BSA (NTH) or deacylated (ES) or sonicated (WMT) phenolic glycolipid-I of *Mycobacterium leprae* and passive hemagglutination test (HAT) using disaccharide-BSA antigen, were independently carried out at three laboratories by using the same set of 413 coded sera which were composed of 197 sera from the patients with leprosy, 81 from contacts, 84 from the patients with tuberculosis, 27 from the patients with other skin disease and 24 from healthy noncontacts. Serological sensitivity and specificity of these tests were expressed by the percentage of positive reactions in leprosy and nonleprosy sera, respectively. The sensitivity of FT and HAT was significantly higher than that of the other tests in 43 sera from paucibacillary leprosy patients. On the contrary, FT and NDH showed significantly lower sensitivity than ES and HAT in 154 sera from multibacillary leprosy patients. Treatment of these patients for 2 years or longer reduced the sensitivity of every ELISA test and HAT, while that of FT was elevated by the treatment for 6 months to 2 years. The percentages of positive reactions in FT and HAT were significantly higher than those in the other tests with the sera from contacts and nonleprosy cases, suggesting that the former two tests are useful for detecting subclinical infection with *M. leprae* although their specificity is lower than ELISA tests.

Concordance and discordance of positive or negative reactions were examined between two tests. Concordance between FT and one of the others was very low owing to the differences in sensitivity and specificity as described above. Every combination between two ELISA tests showed good concordance due to the common principle on which the two tests are based. The grading of reactions used in each test was also significantly different in the several combinations of two tests. Reproducibility of the test in different countries was examined by grouping the sera from multibacillary leprosy patients into continental or oceanic countries. FT showed higher sensitivity in continental countries than in oceanic; whereas the sensitivity of NTH and WMT was the reverse. Moreover, FT was more frequently positive in the contacts in continental countries than those in oceanic. Reproducibility of this test in two different laboratories was low, concordance being 76% in two trials.

These findings were discussed from the standpoint of immunological aspects of leprosy and from the usefulness of these serological tests for early detection of clinical or subclinical leprosy.—(*From the* Summary)

Sehgal, V. N. *Clinical Leprosy (Illustrated Second Edition).* New Delhi: Jaypee Brothers Medical Publishers, 1987, 182 pp., softbound, black & white illustrations, index, Rs. 45.

This 145-page softback book on clinical leprosy includes 18 chapters, five appendices, and an index. It is quite comprehensive and covers the full range of leprosy from etiology, epidemiology, clinical aspects and treatment to prevention and control, and is the result of extensive work with this disease and of teaching leprosy for many years. There are excellent discussions of the various classifications of leprosy and their differences and similarities. Since the book was written in India, it tends to emphasize the Indian classifications and terminology.

There is an extensive and rather unique discussion of the differential diagnosis of all types of leprosy, one of the best discussions of this type I have seen. Under diagnosis, Sehgal describes an interesting sweat test. There are a large number of good black and white photographs. The book is written on a level that can be understood by students while, at the same time, being useful to prac-

ticing physicians and other medical personnel.

Under recommendations for treatment, the author describes the World Health Organization (WHO) protocols for multidrug therapy as recommended therapy for all types of leprosy. Later in the book he notes, on a number of occasions, that he believes dapsone precipitates reactions, including eye problems, and he suggests that dapsone should be discontinued or reduced if reactions are suspected of being caused by dapsone. He recommends that patients should be started on low-dose dapsone, such as 10 mg daily, so that reactions are not precipitated, and he favors this over recommendations given elsewhere in the book. However, he also notes that low-dose or irregular dapsone therapy may be a cause of drug resistance. No mention is made of the use of ethionamide or prothionamide as possible drugs for the treatment of dapsone resistance, except to mention ethionamide with a list of drugs that are of no use in the treatment of leprosy. Thus, the recommendations regarding drug treatment seem somewhat confusing.

In Sehgal's discussion of prevention and control, he makes some rather unusual suggestions, stating that patients who are infectious should live separately, avoid marriage, and may be encouraged to be sterilized. He also notes that if it were possible all leprosy patients should be isolated and that the creation of leposaria would be ideal, but that this is not possible because of financial resources and, therefore, he recommends isolation in the house, avoidance of skin contact, and that contacts should be separated. These recommendations sound quite unusual with present-day therapy recommendations, since it is well known that a few doses of rifampin or 3 months of dapsone treatment will render virtually all patients noninfectious. It would seem that recommendations such as these would serve to increase the stigma and isolation of leprosy patients. There is also a rather unique recommendation regarding the creation of health check posts at railway stations, airports, and borders of states to detect leprosy cases and to issue them identity cards and advice regarding places where they can be treated and given general health education.

There are a few other items which would be considered controversial. Sehgal states that leprosy is transmitted from person to person by direct prolonged intimate skin-to-skin contact. I believe many people would question whether this type of prolonged contact is required for transmission. Lucio's phenomenon is described as being nodules which regress to form ulcers which is something different from the original description of the Lucio phenomenon. He recommends that children with indeterminate leprosy and a positive lepromin skin test need not be treated. The term lepra reaction is used to refer to reversal reactions and/or downgrading reactions.

In spite of the few problems noted, this book reflects an extensive amount of work and experience. Overall, it is a commendable effort to compile a comprehensive small book which will be useful for teaching and as reference for health care workers involved in the care of leprosy patients.—Leo J. Yoder, M.D.

Studies on Leprosy by Bombay Leprosy Project 1976–1986. Bombay: Bombay Leprosy Project, 1988, 407 pp., softbound, Rs. 65.

As stated in the Preface by Dr. R. Ganapati: "Bombay Leprosy Project after its establishment on 6 October 1976, engaged itself in collecting baseline data on the prevalence of leprosy in various urban strata of population, as this information was vitally needed not only for understanding the disease transmission but also for planning altered strategies of leprosy eradication through operational research. The need to face problems posed by leprosy in metropolitan cities with a specialized urban approach is receiving increasing worldwide attention, in the light of several publications on this subject which the project has to its credit. These publications which have given a new insight into such strategies are widely scattered in various journals in India and abroad.

"In this context, those interested in the problem of leprosy and urban leprosy in particular have felt the need for a reference manual where all the contributions of the Project will be available in a simple concise form. This is what has been attempted in this book and it is hoped that this publi-

cation representing the contributions of Bombay Leprosy Project for over a decade will be of use to research workers, students and all those interested in leprosy."

The 407-page book is a collection of published papers covering the wide variety of activities and research conducted at the Bombay Leprosy Project and involving some 72 authors from all over the world. There are nine papers dealing with clinical aspects/diagnosis, ranging from an overall description of reactions in leprosy to a case report dealing with involvement of the scalp in leprosy. Over 70 papers deal with epidemiology/control/treatment. Many offer highly valuable and unique insights into leprosy control in an urban environment. Eight papers deal with laboratory aspects of leprosy, including evaluations of suppressor mechanisms in leprosy and serodiagnosis of the disease. Five papers deal with rehabilitation/social aspects. The book concludes with three papers dealing with health education, a field in which the Bombay Leprosy Project has made pioneering efforts.

Dr. R. Ganapati, Director, Bombay Leprosy Project, and his colleagues are to be congratulated for a highly productive decade in urban leprosy control as evidenced by this very impressive collection of publications.—RCH

In order not to delay publication of this issue, the Board of Directors of the JOURNAL has given its permission for the Index to Volume 56 to be published in the March 1989 issue of the JOURNAL. We hope this will not duly inconvenience readers who wish to bind their volumes promptly.—RCH