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Book Reviews

Diuciphon: Experimental and Clinical Data
by N M Goloschapov, Moscow.

This booklet of 60 pages describes a new anti-leprosy drug named Diuciphon, synthesized and investigated in the USSR. Its chemical name is: para-para-bis (2,4-dioxo-6-methyl-pyrimiddinyl-5-sulphono-amino)-diphenyl sulphone, and its empirical formula is: $C_{22}H_{20}N_6O_{10}S_3$. Clinical trials began in March 1971, and the drug was officially approved by the USSR Ministry of Health in March 1973. It is a white powder, stable, soluble in water, and can be administered orally or by intramuscular injection as a 10% solution prepared immediately before use. The highest concentration in blood is reached in 3–4 h. After oral administration it is no longer detected in the blood at 24 h, but after injection a measurable amount is detected at 48 h, hence the drug cannot be given orally less frequently than twice a day, and by injection less frequently than once in 48 h. It is excreted via the urine.

The trial

The trial reported in this booklet was carried out in 3 clinical centres in the USSR after exhaustive investigations in mice and rats. One hundred and twenty-one leprosy patients were divided into 3 groups, and before giving a summary of the trial I must make the reservation that I encountered some difficulty in gaining the information I considered important; first, because in groups 1 and 2 non-lepromatous patients are included and their progress is not assessed separately from that of the lepromatous patients, and, secondly, because of some discrepancies between text and tables.

Group 1 consisted of 20 patients who had not received previous treatment. Eleven were lepromatous and 9 non-lepromatous, and all 20 had active skin lesions. *Clinical results:* all skin lesions healed at 6 months in 5 patients, at 12 months in 4 more, at 24 months in 6 more, at 36 months in 4 more, and at 48 months in the last patient.

Bacteriological results: 10 patients had positive nasal scrapes at the beginning of treatment (it is odd that they were negative in one of the lepromatous patients), and nasal scrapings became negative in all 10 by 12–24 months. Skin smears were positive in 14 of the 20 patients, with solid-staining bacilli in 11. By 6 months solid bacilli were found in 10, by 12 months in 5, by 24 months in 2, and by 36 months no solids were found. *Histological results:* 16 patients had solid-staining bacilli in biopsies of skin lesions (10 in great numbers). These disappeared in 5 patients by 14–24 months, and in the remainder by 36 months. Four lepromatous patients developed histological evidence of upgrading.

Group 2 consisted of 76 patients, all previously treated. Sixty-nine were lepromatous and 7 were non-lepromatous. Only 60 are discussed in the text (those detained as in-patients), the remaining 16 being difficult to follow up as out-patients, but we are not told if all 60 were lepromatous. Of the 60 patients 39 had active skin lesions, 8 had positive nasal scrapings, 33 had positive skin smears (17 with solid-staining AFB), and 57 had AFB in skin sections

(solid in 25). *Clinical results:* improvement was slow. After 12 months skin lesions had healed in 15 (i.e. of 39 originally with skin lesions), and after 24 months skin lesions had healed in another 16; thus 8 patients still had skin changes at 24 months. *Bacteriological results:* at 12 months nasal scrapings became negative in all 8 patients who were positive originally. As regards the 17 who had solid-staining bacilli in skin smears, by 12 months only 6 had solids, by 24 months there were only 2, and by 36 months no solid-staining AFB were seen. *Histological results:* of the 25 patients who had solid bacilli in biopsies when the trial started, none remained at 24 months. In 4 patients there was histological upgrading from lepromatous to 'a tuberculoid type' – actually, borderline.

Group 3 consisted of 25 lepromatous patients resistant to other anti-leprosy drugs (including Dapsone). Twenty had active skin lesions, 8 had positive nasal scrapings, and all had positive skin smears (solid and granular bacilli). *Clinical results:* at 12 months skin lesions had healed in 13, at 24 months in one more, and at 36 months in 5 more (i.e. in 19 out of 20). *Bacteriological results:* all solid-staining bacilli had disappeared by 25–36 months. *Histological results:* solid bacilli disappeared more slowly than in skin smears, and after 4–5 years of treatment 2 patients had a few solids among the granular forms, 11 had large numbers of granular AFB only, 7 had occasional single acid-fast granules, and 5 had no AFB. Two patients showed histological evidence of upgrading.

Full case histories are given of one patient in group 1, one in group 2, and of two patients in group 3, together with black-and-white photographs.

Conclusions

Diuciphon is effective in all types of leprosy, including Dapsone-resistant leprosy. No toxic effects or reactions were observed throughout the trial. The tendency for Diuciphon to stimulate histological upgrading was demonstrated in 4 patients in group 1, 4 in group 2, and 2 in group 3 (one with clinical upgrading in addition).

In the final pages of the booklet notes are given, together with tables, of the progress of 87 patients in a control group who were treated with various antileprosy drugs other than Diuciphon, and less satisfactory results were recorded.

Dr Goloschapov has written to tell me that Diuciphon has been patented in the UK, USA, France and Japan, and will be marketed in 1981. He is hopeful that the drug will prove of value in the treatment of systemic sclerosis, lupus erythematosus, and rheumatoid arthritis, and investigations are in progress. I understand that copies of the booklet are obtainable in English, French, Spanish and German, and anyone requiring a copy should apply to: V/O 'Medexport', 31, bldg 2, Kakhovka Street, Moscow 113461, USSR. A leprologist requiring a small supply of Diuciphon for treating a patient suffering from drug-resistant leprosy should write to Dr Edward Arminakovich Babayan, Head of the Department of New Medical Treatments, USSR Ministry of Health, Moscow.

W H JOPLING

Standard Management of Tuberculosis and Leprosy in Papua New Guinea, by Myra Kennedy. Boroko, Hebamo Press, Papua New Guinea, Undated.

This practical handbook of 128 pages describes the national policy for the control of tuberculosis and leprosy throughout Papua New Guinea based on case findings, treatment, immunization, health education, and contact tracing. Principal clinical manifestations of the commonly-encountered forms of tuberculosis and of the various types of leprosy are described, and there are 9 good black-and-white photographs of leprosy lesions. The keeping of records is given detailed coverage, together with the making of sputum smears and skin smears. Treatment of tuberculosis is based on 3 drugs – Streptomycin, Isoniazid (INAH), and Thiacetazone (TB1), and dosage schedules are given for patients over 40 kg in

weight, for those under 40 kg, and for children, and side effects are discussed. The majority of patients will need hospital admission for the first 8 weeks (during the time of Streptomycin injections) and then can continue oral therapy as out-patients for 16 months, but admission must not be compulsory. Only a small minority of leprosy patients will need admission, and forced admission is condemned; those who are 'skin smear positive' are given daily treatment with Dapsone (DDS) 100 mg and Clofazimine (Lamprene) 100 mg for 12 weeks, after which they continue on Dapsone alone, while 'skin smear negative' patients are given Dapsone alone in daily dosage of 100 mg. Length of treatment ranges from 2 to 3 years for indeterminate leprosy to life for those on the lepromatous side of the spectrum. The importance of regular treatment and the taking of skin smears at regular intervals is emphasized, with notes on the side effects of these two anti-leprosy drugs and on Dapsone resistance. There is a chapter on Lepra reaction and nerve damage, and one on the prevention and treatment of plantar ulcer. BCG in the prevention of tuberculosis is fully described, to be given three times to children (at or soon after birth, at 7 years, and at 13 years) and once to adults who have never been immunized. The place of BCG in the prevention of leprosy is not mentioned. The tuberculin (Mantoux) test is described, and sound advice is given regarding contact tracing and health education for patients and their families.

The information within these pages will prove of great value to medical auxiliaries, not only in Papua New Guinea but throughout the tropics, but the reviewer would like to see some minor alterations and additions in the next edition: (1) the inclusion of finger smears in the diagnosis and follow-up of lepromatous patients (Jopling, 1979);[1] (2) dosage of Clofazimine in the treatment of leprosy is unnecessarily high; one capsule of 50 mg daily for the first 12 weeks would be adequate for an adult, especially if a single oral dose of 1,200 mg Rifampicin is given on the first day of treatment to render a lepromatous patient non-infectious and rapidly to reduce the number of living AFB. It should be noted that Ciba-Geigy are now manufacturing 50 mg capsules. The statement on page 105 that 'children with positive skin smears can safely be given Clofazimine 100 mg daily' requires correction; 50 mg on alternate days would be quite adequate; (3) in the treatment of pulmonary tuberculosis in developing countries a strong case can be made for reducing the course of chemotherapy to 6 months (Scott, 1978);[2] for the first 2 months the patient receives daily treatment with 4 drugs (Streptomycin 1 g, Isoniazid 300 mg, Rifampicin 450–600 mg, and Pyrazinamide 1.5–2.0 g) and during the remaining 4 months he receives the standard combination of Thiacetazone 150 mg plus Isoniazid 300 mg daily.

W H JOPLING

References

1 Jopling WH. The Saga of the skin smear. *Lepr Rev*, 1979, **50**, 271–3.

2 Stott H. The treatment of pulmonary tuberculosis in the developing countries. *Trans Roy Soc Trop Med Hyg*, 1978, **72**, 564–9.

Dermatology in General Medicine. Textbook and Atlas (2nd ed.), edited by T B Fitzpatrick, A Z Eisen, K Wolff, I M Freedberg and K F Austen. McGraw-Hill Book Company, New York. Price £63.

This is the second edition of a book which has already been highly praised in dermatological and other circles. Including the index, it runs to 1,884 pages; it is 8 cm thick and weighs over 7 kg. There are seven main parts with the following titles: 'Introduction to dermatology in general medicine', 'Biology and pathophysiology of skin', 'Disorders primarily arising in the skin and mucous membrane', 'Dermatology and internal medicine', 'Disorders due to microbial agents', 'Therapy of dermatological disorders' and 'Dermatologic atlas'.

The pages dealing with 'bacterial diseases with cutaneous involvement' are exceptionally well written and the section on leprosy,

by S G Browne, is a delight to read. The UK price seems to have jumped from around £49 to £63 in a matter of months and this will rule out possession of this remarkable book for most individuals – which is a pity, for it is currently claimed by experienced dermatologists and clinicians to be the best of its type available.

Dermatology Update. Reviews for Physicians (1979 edition). Elsevier, New York–Oxford. Price not stated, probably around £13.00.

Those who are not already familiar with other titles in this series (paediatrics, cardiology, pyschiatric medicine, drug therapeutics and clinical immunology) may wonder how it is possible to justify yet another 'update' or review book of this size on the subject of dermatology. Yet half an hour is more than enough to demonstrate its value. This is a beautifully produced and printed book of 456 pages, designed, as the preface says, '. . . to update dermatologists, internists, paediatricians, general practitioners, pathologists, and physicians-in-training in dermatologic progress. A variety of the subjects are reviewed in depth and accompanied by current and complete references. Significant progress is reported in genetics, such as relationship of HLA antigens to dermatologic disease; in an understanding of the heritable disorders of connective tissue diseases, and in the approach and in the diagnoses of heritable skin diseases. Some of the advances in immunology have resulted in a better understanding of the blister diseases and the collagen–vascular diseases, such as cutaneous necrotizing venulitis and mixed connective tissue disease; these too are thoroughly reviewed. The intriguing variants of morphea (localized scleroderma), particularly eosinophilic fasciitis, as well as the newer knowledge of systemic sclerosis, are described.' There are excellent sections on infectious diseases, including mycobacterial infections of the skin; the section on leprosy is difficult to fault. This is by no means a book for the novice, either in dermatology or leprosy, but those with knowledge of these subjects will find it fascinating – some might even say essential reading.

Functional Histology: a Text and Colour Atlas, by P R Wheater, H G Burkitt and V G Daniels. Illustrated by P J Deaking; foreword by R Warwick. Churchill Livingstone, Edinburgh, London and New York, 1979. Price £19.50.

This is a robust, hardback book, measuring 19 × 25 cm, running to 278 pages, including an excellent index, and is an outstandingly well written and illustrated account of mammalian cells and tissues (largely from human sources). The idea for this book '. . . arose from the teaching experience of the authors with Open University students studying histology for the first time. Their ideas were consolidated and developed whilst the authors studied medicine as mature students.' The illustrator, Philip Deakin, was originally trained in graphics, then graduated in physiology before proceeding to medicine, which he is currently completing. The authors begin their preface with the words 'Histology has bored generations of students' and go on to say that they believe this is almost certainly because it has been regarded as a study of structure, isolated from function. This remarkable book goes a very long way to correcting this approach; it should also be of great value to pathologists.

Tuberculosis Case-finding and Chemotherapy: Questions and Answers, by K Toman. WHO, 1978. Price 32 Swiss francs.

This is a cloth-bound book of 239 pages, 16 × 24 cm and 2 cm thick. It poses over 50 questions on the most important and practical aspects of tuberculosis under the main headings of case-finding and chemotherapy, and then answers them in detail. There is a preface by the Director General of WHO, Dr H Mahler. Professor John Crofton of the Department of Tuberculosis in Edinburgh has already reviewed this valuable book in *Tubercle* **60** (1979),

page 195, and his tribute ends: 'Everyone interested in tuberculosis must be grateful to Dr Toman for his industry, his skill in construction and his capacity to crystallize out the practical implications of research. For this is essentially a practical book for the man in the field.'

This book makes interesting reading, if only because of the comparatively confident way in which various regimes of chemotherapy in tuberculosis can be discussed. But it is also a highly informative and educational book, without parallel (regrettably) in the leprosy field.

(Earlier this year, IUAT and ILEP members were circulated on the matter of a reduced price and enquiries could still be sent to these agencies.)

Leprosy. Proceedings of the XIth International Leprosy Congress, Mexico City, November 13–18, 1978, Excerpta Medica, Amsterdam–Oxford–Princeton, 1980, edited by F Latapi, A Saul, O Rodriguez, M Malacara and S G Browne. Price 170 Dutch florins.

This is the definitive publication for the XIth International Leprosy Congress, produced from camera-ready typed scripts submitted by participants prior to the event. The main headings are: epidemiology and control, experimental leprosy, clinical aspects, microbiology, immunology, social aspects, experimental chemotherapy, clinicopathological aspects, nerve damage, therapy, rehabilitation and workshop summaries.

The standard of production and clarity are high, but the price (about £36 sterling; $75, US) will put it far beyond most individuals. This is regrettable, for, until the next Congress in 1983, it carries in considerable detail the views of many world experts in the field of leprosy, and as such it should be freely available to the widest possible readership.

A C McDOUGALL

Mister Leprosy, by Phyllis Thompson. Published jointly by Hodder and Stoughton and the Leprosy Mission England and Wales. Paper, 220 pp. £1.50.

A life-time of service to those who suffer from leprosy was recognized today by the publication of a biography on the life of Dr Stanley Browne, GMG, OBE. Published jointly by Hodder and Stoughton and the Leprosy Mission England and Wales, the book has been written by Phyllis Thompson, and is a story of dedicated Christian service by a man born in the dreary streets of New Cross, in South-East London, who has become one of the most respected figures in the treatment and control of leprosy throughout the world.

Tracing his life from the early family days in London, as a boy in a secondary school, as a student at King's College, London, as a missionary doctor in Africa, and as a consultant reaching the top of his profession, Phyllis Thompson unfolds the fascinating story of a brilliant and dedicated doctor who firmly believes that God has called him into each situation, and has given him a definite task to perform. The book reveals the hardships which faced Stanley Browne throughout his life, and the chapters on missionary activity in the Belgian Congo (now Zaire), provide a good account of the development of medical work in that country. Those who know Phyllis Thompson's other books will appreciate her readable style as she reveals a life of prayer and hard work which has been honoured internationally.