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## Rezensionen – Analyses – Reviews

Dinah M. James and H. M. Gilles: Human Antiparasitic Drugs: Pharmacology and Usage. John Wiley & Sons, Chichester 1985. XIII and 289 pages, £ 15.50.

There is an urgent need for new and better antiparasitic drugs, particularly against protozoal infections. Three drugs, namely suramin, pentamidine and melarsoprol, are available for the routine treatment of human African trypanosomiasis. They were introduced clinically in 1920, 1940 and 1949, respectively, in consequence of Ehrlich's work on arsenical compounds at the beginning of the 20th century. All of them may produce severe side effects. Treatment of Chagas' disease neither with nifurtimox nor benznidazole is satisfactory. The antimonials sodium stibogluconate and meglumine antimonate were introduced clinically in 1937 for treatment of visceral and mucocutaneous leishmaniases. Because more suitable drugs are not available, they are still used today, despite inconveniences of application, and toxicity. The emergence of strains of *Plasmodium falciparum* which are resistant to chloroquine, the combination of pyrimethamine with sulphadoxine, or mefloquine seriously hamper control programs, prophylaxis and treatment.

This book is intended to stimulate interest and research into development of new antiparasitic compounds. Followed by general considerations on drug treatment and drug development, there are chapters on trypanosomiases, leishmaniases, amoebiasis, malaria, and other protozoal infections; on intestinal nematodiases, the filariases and other tissue nematode infections, cestodiases, and the trematodiases. In each chapter there are sections on the taxonomy, life cycle and transmission of the parasite, and on clinical manifestations, before techniques for drug evaluation, pharmacodynamics, kinetics and toxicity of specific drugs are presented in detail. Clinical use is mentioned rather shortly; however, in three appendixes a summary on treatment of protozoal, malarial and helminthic infections is given. An alphabetic index is provided for quick reference.

I found few omissions: on the treatment of toxocariasis and larva migrans, and on quinidine as an emergency antimalarial when quinine is not available. These minor errors do not detract from the value of this excellent book which is well presented and well written. It can be recommended to biologists, parasitologists and infectologists, in fact to all who would learn more about the properties and mechanisms of action of antiparasitic drugs.

DIETER STÜRCHLER Swiss Tropical Institute, Basel Viral Diseases in South-East Asia and the Western Pacific. Proceedings of an International Seminar on Viral Diseases in South-East Asia and the Western Pacific held in Canberra, Australia, 8–12 February 1982. Edited by John S. Mackenzie, University of Western Australia. Academic Press, New York 1982. XX and 751 pages. S 36.50.

The book contains the papers presented at the International Seminar of Viral Diseases in South-East Asia and the Western Pacific in 1982. As in most congress reports, the reader finds outstanding contributions along with simple compilations of only marginally relevant data. But as a whole, the volume gives a valuable reference guide to the major viral diseases and their incidence in this geographical region. It is not only useful to infectious disease physicians and those interested in tropical medicine, but also to public health personnel.

The book is divided in seven parts, which can be arranged in three major groups. The first section comprises a series of more general reviews including geographic and sociologic epidemiology, immunopathology, malnutrition, diagnosis and control of viral diseases. The second part gives a number of "National Overviews" on the viral diseases important in each of the nations in this region. Although, as stated by several participants, necessarily incomplete and, due to the absence of public health laboratories for microbiologic diagnosis, reflecting merely an iceberg phenomenon, this section of the book is likely to be the most valuable for every practical purpose. The last part on "Specific Viral Diseases" contains useful information, but most of it can either be found in basic textbooks on virology and shows little relation to the specific problems of developing countries or it is too sophisticated to be of any value to e.g. a laboratory struggling against the fundamental problems of inadequately trained personnel or insufficient reagent supply.

K. BIENZ, Institut für Mikrobiologie und Hygiene. Basel

**Microbial Toxins and Diarrhoeal Disease.** Edited by David Evered and Julie Whelan. Pitman Publishing Ltd., London 1985. X and 286 pages, 48 figures, 33 tables.

Taking science where the diarrhoea is' was the concern at the conclusion of a previous Ciba Foundation Symposium. The present account, well edited and with an excellent introduction and summary by the Chairman, R. L. Guerrant, reports of a step in that direction. Specific topics include the role of the mucosal barrier and the submucosal neuroendocrine and immune systems in these diseases: toxins such as cholera toxin that activate adenylate cyclase; heat-stable enterotoxins activating guanylate cyclase; the new enterotoxin of *Escherichia coli* which appears to function independently of cyclic nucleotides; and the third messengers (including the protein kinases) that mediate the initial effects on the gut. Separate chapters discuss the pathogenesis of salmonellosis and shigellosis, the delta toxin of *Staphylococcus aureus* and the clostridial toxins active in the gastrointestinal tract. The final section considers new vaccines for the control of cholera and enterotoxigenic *E. coli* diarrhoea, and the role that genetic engineering of microbial toxins is now playing in the development of such vaccines. This account can be recommended to every scientist interested in the field.

R. Steffen, Institut für Sozialund Präventivmedizin, Zürich