

BOOK REVIEWS : BOEKRESENSIES

KWASHIORKOR

Kwashiorkor. By H. C. Trowell, O.B.E., M.D., F.R.C.P., J. N. P. Davies, M.D. and R. F. A. Dean, Ph.D., M.R.C.P. (Pp. 308 + xii, with illustrations. 50s.) London: Edward Arnold (Publishers) Ltd. 1954.

Contents: Part I. Reports of Kwashiorkor in Children and a Discussion of Terminology. *Part II.* The History of Kwashiorkor. *Part III.* Kwashiorkor in

Children. *Part IV.* Protein Malnutrition in Adults. *Part V.* Implications of Kwashiorkor in Children and of Protein Malnutrition in Adults.

This monograph is to be very warmly welcomed as the first full and detailed account of this interesting disease. The senior author has been a pioneer in the study of kwashiorkor in East and Central Africa. Dr. Davies as Professor of Pathology at Makerere University in Uganda (the inter-territorial University of British East

Africa) has made an intensive and interesting study of the pathology of Uganda Africans and especially of kwashiorkor. Dr. Dean after extensive experience of the correction of severe undernutrition in children in Germany in the post-war period has been appointed Director of a group for the study of infantile malnutrition in Uganda and is financed by the Medical Research Council of Great Britain. These three have combined in an authoritative account of kwashiorkor in Uganda which must be a standard reference not only for Uganda but for Africa and also for related syndromes in other parts of the world which are increasingly coming to be called kwashiorkor. Many of the alternative names coined in other parts of the world are given in the monograph and a more complete list is given as an appendix to the report of the third session of the Joint FAO/WHO Expert Committee on nutrition (FAO Nutrition Meetings report No. 7, Rome, December, 1953).

The monograph accepts the main recommendations of the third session of the Joint FAO/WHO Expert Committee in Nutrition which met at Fajara, Gambia, in November 1952, following an African Conference on this subject organized by C.C.T.A. In general definition and nomenclature kwashiorkor is regarded as a dietary disease resulting from protein malnutrition. Non-dietary factors may contribute but the disease does not develop when diet is reasonably satisfactory in respect of proteins. Protein malnutrition is defined by the third session of the Joint Committee. It is rather a pity that this definition has not been reproduced in the monograph since there have been many misunderstandings of the term 'Protein Malnutrition'. As used by the Joint Committee it refers to deficiency of protein foodstuffs, not of protein as a pure combination of amino acids. Protein malnutrition is best seen where calories are generously provided by starchy foodstuffs but, where both calories and protein foodstuffs are deficient in the diet, varying clinical pictures form a transition from typical kwashiorkor to undernutrition and marasmus. To attribute kwashiorkor to dietary protein malnutrition is not equivalent to calling it protein deficiency in the sense of a pure combination of amino acids. Protein malnutrition as defined by the Joint Committee allows a role in causation not only for amino acids but also for vitamins, known and unknown, and even trace mineral elements. The extent to which amino-acid deficiency is the limiting factor in the production of the deficiency state has not yet been settled.

There are many people, including some workers in South Africa, who regret the adoption and popularization of the term 'kwashiorkor'. To a limited extent the reviewer shares this feeling, but recognizes that the Joint Committee was faced with the problem that it could not find a better name among the long list in the appendix to the third report. Objection to the use of the term 'kwashiorkor' has probably been most clearly expressed by Gomez *et al.* from Mexico City (Acta paediatrica, 1954, 43, 336). The plea of these workers is for the use of the term 'malnutrition' (desnutricion) in preference to all other names. They propose to classify 'malnutrition' simply by degrees—first, second and third. With this opinion the reviewer cannot agree, and the general use of the term 'kwashiorkor' seems to be the lesser of two evils.

There has been a general international tendency recently to confine the term 'kwashiorkor' to protein malnutrition as seen in the breast-feeding or post-weaning child. This tendency seems to follow on the etymological conclusion that kwashiorkor means 'the deprived child'. The authors of this monograph, however, point out that protein malnutrition with indistinguishable clinical features occurs also in adolescents and adults, and they have a section of their book devoted to 'protein malnutrition in adults', in which they recommend the label kwashiorkor.

Altogether this is a very fine piece of work, which will constitute an important reference for the study of protein malnutrition throughout the world. It is also a monument to the British Colonial Medical Service in Africa and to the Mulago Medical School at Makerere University.

J.F.B.

FAT METABOLISM

Fat Metabolism. By Victor A. Najjar. (Pp. 185 + viii, with illustrations). Baltimore: The Johns Hopkins Press. 1954.

Contents: 1. Clinical and Biochemical Features of Fat Metabolism. 2. Obesity in Childhood—Some Clinical Aspects. 3. Multiple Causative Factors in Obesity. 3a. Discussion: Constitutional Factors in Obesity. 3b. Discussion: Endocrine Factors in Obesity. 4. Lipemia. 4a. Discussion Essential Hyperlipemia. 5. Preparation, Utilization, and Importance of Neutral Fat Emulsion in Intravenous

Alimentation. 6. On the Role of Lipemia Clearing Factor in Lipid Transport. 7. Consideration of the Role of Coenzyme A in Some Phases of Fat Metabolism. 8. Enzymatic Oxidation and Synthesis of Fatty Acids. 8a. Discussion: A Contribution to the Mechanism of Diabetes Mellitus. 9. Lipogenesis *in vitro* and its Hormonal Control. 10. Lipid and Phospholipid Synthesis. 11. Some Aspects of Cholesterol Metabolism Related to Atherosclerosis. Index.

This book is a companion volume to the symposium on carbohydrate metabolism by the same editor which was published in 1952 and reviewed in this journal.

Fat metabolism has been the subject of many hypotheses; β -oxidation, multiple alternate oxidation, and acetic-acid condensation have in turn held the field. In the last 5 years many of these problems have been solved by the discovery of active acetate, a two-carbon-fragment activated combination with coenzyme A. Active acetate appears as the essential stepping-stone in the synthesis and oxidation of fat. By its first condensation active acetate forms acetoacetate-coenzyme A, an activated form of acetoacetate; this is the first step in building up the fatty-acid chain and also provides an important normal metabolite. Active acetoacetate is unstable and when produced in excess by over-active fat-metabolism much of it may lose its coenzyme A and with it its reactivity. Plain acetoacetate is left, which is disposed of with difficulty and is the cause of ketosis.

Active acetate may enter the citric-acid cycle and may also be derived from carbohydrate metabolism, so that one link between fat and carbohydrate metabolism has become clear. Active acetate is also the essential building brick in the synthesis of cholesterol, which lies under such heavy suspicion in connection with the causation of atherosclerosis.

This book gives an account of this progress in biochemistry. There are also essays on the psychosomatic approach to the problem of obesity; on lipaemia, heparin and the clearing factor; and on fat emulsions for intravenous feeding.

G.C.L.

ADVANCES IN ENDOCRINOLOGY

Recent Advances in Endocrinology. P. M. F. Bishop, D.M. (Oxon.), M.R.C.P. (Lond.). Seventh edition. (Pp. 348 + viii, with 34 illustrations. 30s.) London: J. & A. Churchill, Limited. 1954.

Contents: 1. The Adrenal Cortex. 2. The Endocrine Control of Carbohydrate Metabolism. 3. Cushing's Syndrome. 4. Hermaphroditism, Pseudohermaphroditism and Macrogenitosomia Precox. 5. Precocious Puberty and Sexual Precocity. 6. Testicular Deficiency. 7. Virilism and Hirsutism. 8. Clinical Use of Oestrogens. 9. Hormones and Cancer. 10. The Management of Thyrotoxicosis. Appendix I and II. Index.

Recent Advances in Endocrinology was first published by the late Professor A. T. Cameron in the year 1933, and had reached the 6th edition at the time of his death in 1947. Seven years had, therefore, elapsed before the appearance of the present edition.

The publishers have been very wise in their choice of Dr. P. M. Bishop as author of this edition. He has achieved fame as an endocrinologist and is consultant to Guy's Hospital, Chelsea Hospital for Women and the Post-Graduate Medical School of London.

This book has been completely recast and rewritten. When Professor Cameron first wrote the book in 1933, there were practical ly no text-books on the subject written in the English language and he performed a valuable service in covering the whole ground. Endocrinology has advanced at a prodigious rate and there are now many excellent text-books. Dr. Bishop has, therefore, chosen to deal with only certain aspects of endocrinology. He has also viewed the subject from a different angle, as Professor Cameron was a biochemist and Dr. Bishop is a clinical endocrinologist.

The chapter on the adrenal glands contains a lucid description of the chemistry and actions of the steroids. In addition to clinical syndromes, there is a practical discussion of the use of ACTH and cortisone.

Recent work on the various aspects of carbohydrate metabolism is adequately presented and the endocrine factors are stressed.

Dr. Bishop has had an intensive experience with Cushing's syndrome and this chapter is most informative. In addition, his vast experience in the treatment of sex disorders in the female is summarized in a most valuable chapter.

The management of the thyrotoxic patient is of great concern to every practitioner. The author has presented an unbiased assessment of the different treatments which should facilitate one's approach to the problem.

Precocious puberty, sexual precocity, pseudo-hermaphroditism, testicular deficiency, virilism, hirsutism and the place of the hormones in cancer, are dealt with in a clear and instructive manner.

All the important advances are well covered and the book contains a wealth of information. It should be read with great benefit by the general practitioner, physician and endocrinologist.

Dr. Bishop is to be congratulated for the manner in which he has dealt with a most difficult task and it is hoped that he will continue to edit this book for many years to come.

S.L.

LEG ULCERS

Leg Ulcers. Their Causes and Treatment. By S. T. Anning, T.D., M.A., M.D. (Cantab.), M.R.C.P. (Pp. 178 + viii, with 42 illustrations. 18s.) London: J. & A. Churchill, Ltd.

Contents: 1. Historical Survey. 2. The Normal Circulation of the Lower Limb. 3. The Causes and Results of Failure of the Leg Muscle Pump. 4. Clinical Conditions causing Venous Thrombosis. 5. The Pathology of Venous Thrombosis. 6. Arterial Disease and Leg Ulcers. 7. The Influence of Heredity. 8. Miscellaneous Factors. 9. Treatment. Conclusion. References. Author Index. Subject Index.

This monograph is little more than a review of the literature and the 1026 cases seen by the author. There is no evidence of basic investigations having been done to solve the real problems of this condition. One thus finds that, although virtually the whole book is devoted to venous ulceration, there are no anatomical dissections, venous pressure readings or phlebograms illustrated (but there are numerous illustrations of how to bandage the ulcerated leg).

There are some interesting observations regarding heredity, hypertension, obesity, occupation and the relative incidence of the various types of leg ulcers, particularly the fact that 4.1% were the direct result of the injection of varicose veins.

The author is a dermatologist; so one does not expect surgical management to be stressed but, even though surgery has a limited place in the treatment, it warrants more than the 5 pages allocated to it.

The list of references is large but it is surprising to see that Sherman's work has been missed out. Its inclusion will be a decided improvement.

D. J. du P.

BRITISH ENCYCLOPAEDIA OF MEDICAL PRACTICE: 1954

The British Encyclopaedia of Medical Practice: Medical Progress 1954. Edited by Lord Horder, G.C.V.O., M.D., F.R.C.P. (Pp. 281 + vi). London: Butterworth & Co. (Publishers) Limited. South African office: Butterworth & Co. (Africa) Ltd., Durban. 1954.

Contents: Part I. Critical Surveys. 1. Medicine. 2. Surgery. 3. Obstetrics and Gynaecology. 4. Chest Surgery. 5. Neurology. 6. Gastro-enterology. 7. Psychological Medicine. 8. Occupational Skin Diseases. 9. Progress in Forensic Medicine. 10. Physical Medicine. 11. School and Priority Dental Services.

Part II. Drugs. 12. Recent Developments in Pharmacology and Therapeutics. *Part III. Abstracts.* 13. Abdominal Emergencies—Whooping Cough. Index.

This book is in 3 parts—the first consists of critical surveys covering nearly the whole field of medicine in 11 chapters, each writer being an expert in his particular field.

The Editor-in-Chief—Lord Horder—needs no introduction. In his foreword he quite rightly and with full justification remarks: 'Medical aspects of cardiac, vascular and peripheral arterial disease are claiming a large amount of interest, and in these conditions there is an excellent example of team work—the physician, surgeon and technician all playing their part'. In the chapters dealing with these conditions the reader will find the most recent work and results of the British School set out. There is no doubt of the enormous interest of all sides of the profession in chest and cardiac surgery.

The chapter on Physical Medicine by Francis Bach needs special mention. He is a dynamic writer and sets out as his object the attaining and retaining of positive health. He describes two trends: first the development and use of instruments of precision, and secondly the organization and coordination, particularly in the hospital, of rehabilitation. The future of this branch of medicine is exciting and assured.

In Part II A. D. Stuart deals with recent developments in Pharmacology and Therapeutics; and to the general practitioner, this is indeed a valuable addition to this volume.

Part III consists of abstracts from publications in nearly every country where medicine is practised, and fills over 100 pages of

the book, covering the entire field of medicine. A bibliography and full references are provided.

I can recommend this volume wholeheartedly—the contents represent the best of the British School of Medicine. The printing and binding are excellent. One criticism: why cram the first and last pages with advertisements of drugs and books? Most practitioners get an overdose of proprietary advertisements as it is, and one can at least expect a book of this calibre to refrain.

A.M.M.

MEDICINE AT THE VIENNA UNIVERSITY

The Medical Faculty of the Vienna University. By Prof. Dr. Fritz Driak. (Pp. 71, with 17 illustrations). Austria: Urban & Schwarzenberg, 1954.

Contents: 1. From the History of the Medical Faculty of the Vienna University. 2. The Medical Faculty of the Vienna University in Modern Times. 3. The Study of Medicine at the Medical Faculty of Vienna University in Modern Times. 4. Post-graduate Training of Medical Doctors in Austria. 5. The Life of the Student in Vienna—Concluding Remarks.

This small book of 71 pages has been prepared by Professor Driak as a guide to Austrian students and students from foreign countries who study at the Medical School of the Vienna University.

The students cannot fail to be impressed by the history of the Alma Mater Rudolphino Vindobonensis whose records in the Medical Deanery have been preserved without interruption since 1399, the oldest documents of the hospital dating back to the year 1200. And what a formidable array of names record the glories of the past!

Then follows an outline of the programme of study for the undergraduate and the post-graduate students with a comprehensive list of facilities available to them. After five years the successful student receives a diploma of doctor of medicine but is not allowed to enter private practice until he has served a further three years in a public hospital or other approved institution under guidance and supervision of the head of the institution. Only then is he permitted to practise the medical profession independently and entitled to call himself a 'practitioner'.

A.K.

CLINICAL ENDOCRINOLOGY

Clinical Endocrinology. By Laurence Martin, M.D., F.R.C.P. and Martin Hynes, M.D., M.R.C.P. Second Edition. (Pp. 253 + ix with 39 illustrations. 20s.) London: J. & A. Churchill, Ltd. 1954.

Contents: 1. The Pituitary. 2. Fröhlich's Syndrome and Obesity. 3. The Pineal Body. 4. The Thyroid Gland. 5. The Parathyroid Glands. 6. The Thymus. 7. The Adrenal Glands. 8. The Testes. 9. The Ovary. 10. The Breast. 11. Hormone Implantation.

The second edition of this book is to be warmly welcomed after the passage of 6 years. There are many recent large volumes and reference works on endocrinology, and they must be very confusing to the student and general practitioner. There is need for a simple clearly-set-out description of the principal endocrine abnormalities and their differentiation and treatment. This need, as Sir Lionel Whitby says in his foreword, is admirably met by this book. In the preface to the second edition the authors say, 'In order to keep within the bounds of our subject, and to avoid embarking upon a textbook of general medicine, we have not given accounts of the numerous non-endocrine diseases for which cortisone or ACTH can be used in treatment'.

The book is fully up to date in such matters as aldosterone and the treatment of Addison's disease, but it is surprising to find no reference to adrenalectomy in the index. From the local African point of view it is surprising to see the subject of gynecomastia dealt with without reference to malnutrition.

The subject of the development of nodules in simple goitre is dealt with in a most exemplary way, even if there are still some who may not agree with the views expressed. In the reviewer's opinion all that is needed to complete the account on pages 64 and 65 is a statement that there is no such thing as a chronic diffuse goitre without nodules.

The language is lucid, the clinical description exact, and the recommendations for treatment concise and conservative. No general practitioner or student could read this book without profit and pleasure; and there are few physicians to whom the same remarks would not apply.

J.F.B.