

MEDICAL RESEARCH

Current Medical Research. A reprint of the articles in the Report of the Medical Research Council for the year 1956-1957. Pp. v+54. 12 Figures. 3s. 6d. net. London: Her Majesty's Stationery Office. 1958.

This pamphlet is a reprint of the articles in the report of the Medical Research Council for 1956-57. The ingenuity of the organic chemist continues to be a source of never-ending amazement, at least to those of us who do not belong to that discipline. Not so long ago they unravelled the intricate and fascinating structure of nucleic-acid. Now we are presented with the complicated architecture of a protein molecule.

The 'Iron lung' type of respirator has serious drawbacks, chief of which is the inaccessibility of the patients to nursing. The earlier cuirass type caused much bruising. The latest models are free of this weakness. There are developments in other directions, e.g., Intermittent Positive Pressure Respirators.

Studies on influenza during 1957 are reported, especially in Asian influenza and trials with a vaccine against it.

'New' viruses of the respiratory tract, the adenoviruses, and of the intestinal tract, the ECHO viruses are reported; also the advances that have been made in the culture of the virus of measles. It has long been known that a virus may interfere with the growth of a completely unrelated virus. It looks as if the substance isolated and called interferon is responsible for this mechanism.

With the older laboratory tests for syphilis there was the serious disadvantage of the so-called 'false positive' reaction. The treponema-immobilization test overcomes this. Treponemal-agglutination tests have been devised and now a treponemal Wassermann reaction. Factors which influence the site of involvement in the cord in poliomyelitis and the severity of affection of muscles have been studied. There are community surveys in the study of rheumatoid arthritis. It is well known that pyrexia can be caused by other processes than infection. This study is concerned with fever provided by clinical substances, microbial pyrogens and

endogenous pyrogens. There is a report on 5 hydroxytryptamine (serotonin), its source and its action. Considerable advances have been made in the chemical (as opposed to the biological) assays of the female sex hormones. The study on radiostrontium is topical. The different effects at different age periods is interesting as well as the conditions under which the strontium is not so easily displaced by calcium in the bones. There is a report on experimental leukaemia and another on genetics in eye disease.

F.F.

ANGIOGRAFIE VAN DIE NIERE

Angiographie der Nieren. Von Doz. Dr. E. Vogler und Prof. Dr. R. Herbst. Mit einem Vorwort von Hofrat Prof. Dr. A. Leb. XII+112 Seiten. 97 Abbildungen in 182 Einzeldarstellungen. DM 54. Stuttgart: Georg Thieme Verlag. 1958.

Ses metodes van angiografie van die niere word in besonderhede bespreek. Die perkutane katetermetode deur die arterie femoralis het die minste komplikasies en vereis nie 'n algemene narkose nie, wat dit die verkieslike metode maak. Die gerigte nierangiografie, waar daar 'n selektiewe vulling van 'n arterie renalis is, spruit hieruit. Omdat die pasiënt nie onder narkose is nie kan hy op die deurligtingstafel saamwerk deur in gewenste posisies te draai.

'n Belangrike kontraindikasie van nierangiografie is 'n onvolledige urologiese ondersoek—dit mag nie die roetineondersoeke vervang nie, maar dien as 'n laaste hulpmiddel by die preoperatiewe diagnose. 'n Belangrike indikasie is die sogenaamde eensydige funksielose nier, waar binne-aarse en retrograde metodes nie suksesvol is nie. Dit kan 'n antwoord gee op die vraag of die nier weer gaan funksioneer. Die grootte van die renale arterie, die nefrografiese resultaat en ander kriteria word in hierdie verband genoem.

Besonder mooi is die illustrasies van die veneuse fase in nierinfarkt. Die talle illustrasies is van hoë gehalte, met die uitsondering van twee wat Bucky-strepe wys. Oor die geheel is dit nie van belang nie.

Dit is waardevol om hierdie hoogstaande en omvattende monogram te lees. Dit is haas onontbeerlik vir diegene wat direk met die verskillende tegnieke gemoed is, nl. uroloë en radioloë. Die enigste hoofstuk wat teleurstel is die wat handel oor 'hipertensie van onbekende oorsprong'. Daar word ingegaan op die diagnose van feokromositoom, maar hipertensie as gevolg van nieraandoenings word ongelukkig afgeskeep.

SKIN GRAFTING

A.D.K.

Skin Grafting. 3rd Edition. By James Barrett Brown, M.D. and Frank McDowell, M.D. Pp. xv+411. 328 Figures and 6 Color Plates. 105s. net. London: Pitman Medical Publishing Co. Ltd. 1958.

The authors have been generous with their illustrations and many excellent facial reconstructions are shown. Nasal reconstruction from arm flaps are seldom seen in England and excellent examples by this method, in addition to others by the more usual forehead flap method, are shown.

Burns of all types form a large part of the text. The resuscitative treatment is fully described and the paramount importance of whole blood transfusions is stressed. Substitutes, such as saline or plasma, are quite inadequate. Treatment with tannic acid, so popular before the last war, is rightly condemned and the use of vasaline dressings covered by pressure bandages is now routine treatment. Later reconstruction work following burn contractures is shown in considerable detail.

The authors are not keen on tube-pedicle flaps; they prefer square flaps where possible and use large square flaps, raised from the abdomen and based on the entire length of the arm, for large repairs of the lower leg.

The present edition includes a new chapter on repairs of the genitalia. Much can be done for these cases and the earlier they are treated the better. The shaft of the penis is covered with a split thickness graft. The functional result is very satisfactory. Scrotal loss is treated by placing the testicles in pockets in the thighs. Contrary to many authorities this is not necessarily followed by infertility.

This book can be strongly recommended as a valuable contribution to the armamentarium of the plastic surgeon.

N.P.

THE BRAIN AND HUMAN BEHAVIOUR

The Brain and Human Behavior. Proceedings of the Association for Research in Nervous and Mental Disease. December 7 and 8, 1956, New York, N.Y. Volume XXXVI. Editors: Harry C. Solomon, M.D., Stanley Cobb, M.D. and Wilder Penfield, M.D. Pp. xi+564. Figures. \$15.00. Baltimore: The Williams & Wilkins Company. 1958.

The published Proceedings of the Association for Research in Nervous and Mental Disease have always been of a very high standard and this volume is no exception to that rule, but it contains work which is very complex and difficult to follow. Professor Lashley starts off with a most stimulating essay in which he dismisses the search for the ego as futile. He puts in its place 'mind', which is only an organization of activities, and he relegates 'self' to a distortion of body images. His arguments are more forceful than conclusive, as for instance when he states that 'we must expect the mechanical brain to be confused problems of self and object', but at least he has the courage to face up to questions which most neurologists shelve.

The chapter by Denny-Brown and Chambers on the parietal lobe is a splendid analysis of behavioural changes in the macaque with parietal lesions, and Denny-Brown forthrightly states that he considers these observations to be relevant to human behaviour.

As might be expected the temporal lobe and pharmacologically induced behavioural changes both receive a good deal of attention from numerous contributors, and finally Harold Wolff and his co-workers end the Proceedings with a notable chapter on the effect of stress on the highest integrative functions in man, showing that not only may children who are raised in a relentlessly hostile atmosphere behave as idiots, but that adults who are subjected to prolonged stress, isolation, frustration or revilement, may pass through recognizable and predictable stages of progressive impairment, comparable to the impairment observed in subjects with progressive loss of actual brain substance.

Difficult as much of the matter in this book is, there is much

that must be of vital importance to all those, apart from neurologists and psychologists, who are interested in the empirical and philosophical problems of human behaviour.

J.M.MacG.

CEREBRAL PALSY

Cerebral Palsy in Childhood. By Grace E. Woods, M.D., D.P.H., D.C.H. With a Foreword by Peter Henderson, M.D., D.P.H. Pp. xii+158. 41 Figures. 27s. 6d.+1s. 0d. Postage. Bristol: John Wright & Sons Ltd. 1957.

Pioneer workers like Phelps, Perlstein and Carlson in America, and Eirene Collis and the Bobarths in England, have stimulated increasing interest in the diagnosis and management of the child with cerebral palsy. More and more diagnostic clinics, special schools and hostels are being established, and their work is widely publicized. In South Africa there are now several well-equipped schools, and Government grants are available.

It is now being recognized that far more can be done for these children than used to be thought, and a gloomy prognosis is often unjustified. Progress will depend on 2 factors: (1) early diagnosis and (2) proper facilities for education, training, and medical care, such as exist in the special schools previously referred to.

This book by Dr. Grace E. Woods is based on a survey conducted in Bristol during the last 5 years and is concerned mainly with the causation and clinical description of the many manifestations of cerebral palsy. Dr. Woods has made a useful contribution to our clinical knowledge of this difficult subject, but unfortunately she does not concern herself with methods of treatment or results. This is a pity for, as anyone interested in cerebral palsy knows, treatment is far from easy, and information about the methods which have been found useful in various centres, is urgently required.

Dr. Woods would be doing a service if she follows up this book with one describing in detail the organization of treatment and results at the school for spastic children with which she has been associated.

I.M.

MEDICAL RESEARCH

Methods in Medical Research. Vol. 7. Editor-in-Chief: James V. Warren. Pp. xiii+237. Figures. \$7.50. Chicago: Year Book Publishers, Inc. 1958.

This is the 7th volume of this well known series on methods in medical research. Like its predecessors it consists of a series of articles on methods in highly specialized fields of research. This particular volume contains an apparently ill-assorted selection of subjects including the chemical investigation of the muscular tissues and methods for the study of the histology and cytology of the retina. These articles and the section on leucocytes however demonstrate clearly the attempts to gain some understanding of the biochemical activity of the cell. The section on haemodynamics is an extension of the earlier tried methods of investigation described in volume one of this series. Among the subjects included are the dye injection technique of Hamilton and Stewart for the measurement of cardiac output and the Korner-Shillingford method for estimating regurgitant flow. Perhaps the most interesting is the section on the measurement of the coronary blood flow. The ability to measure any changes in coronary blood flow is most important since such changes must influence the interpretation of the arteriovenous differences of substances concerned in myocardial metabolism.

This volume is intended as a reference book for research workers in their special fields. As such it is a valuable volume, but has little of interest for the general medical reader.

L.E.

ENDOCRINE PATHOLOGY OF THE OVARY

Endocrine Pathology of the Ovary. By John McLean Morris, M.D. and Robert E. Scully, M.D. Pp. 151. 75 Illustrations. 72s. 3d. St. Louis: The C. V. Mosby Company. 1958.

The author gives a very good account of this very complex subject and reviews all the recent literature. Although he gives his own opinion, the opinions of other writers are given in detail. A very full list of references are included and the text is supported by beautiful photographs. It can be recommended to specialists and the numerous photographs can be of great help to histologists,

but to the undergraduate and the general practitioner it would make a complex subject even more complex.

The introductory chapters are the best in the book. A detailed account of the normal physiology and histology of the ovary is given. It is well shown that all ovaries secrete androgens as well as oestrogen and progesterone and that any disturbance in this relationship can cause virilism. The Stein-Leventhal syndrome, which has come so much to the fore in latter years, is fully discussed.

According to the author morphology must remain, at least for the time being, the principal basis for the identification and classification of functioning ovarian tumours. Endocrine effect cannot be used as an absolute criterion, for similar effects can be ascribed to a variety of cell types. Likewise, as is true in other endocrine glands, absence of demonstrable hormonal change does not exclude the endocrine-cell origin of the tumor.

The author stresses the fact that all these tumours are malignant and should be treated by total hysterectomy and bilateral salpingo-oophorectomy. In some cases the uterus can be conserved but only for the purpose of follow-up with radium therapy. In the young woman who wishes to have children, conservative surgery may be attempted but the patient should be under constant observation thereafter.

R.W.A.N.

DISEASES OF THE COLON AND RECTUM

Diseases of the Colon and Rectum. Vol. I. January-February 1958. No. 1. Editor-in-Chief, Louis A. Buie, Sr., M.D. Pp. 80+16 Illustrations. Published every two months. Subscription including postage £5 per annum. Philadelphia and Montreal: J. B. Lippincott Company. British Representatives: London: Pitman Medical Publishing Co. Ltd. 1958.

These are the first two numbers of a new Journal which has been published in the United States of America. These days, when one is hard pressed to keep up with reading all the journals with which one tries to keep abreast, the advent of a newcomer may not always be greeted with an enthusiastic welcome. There are at least two journals published in the U.S.A., 'Gastro-enterology' and 'The American Journal of Digestive Diseases' which include many excellent articles on diseases of the colon and rectum. One may suppose that for specialists in the subject, such as members of the American Proctological Society, this specialized publication will be of great service, since it will enable the reader

to obtain a comprehensive knowledge of the advances in this field. The Journal is under the distinguished editorship of Dr. Louis A. Buie and the original articles in these two journals are of a high scientific standard. There is a feature of selected abstracts which promises to be very useful. In addition there is a review of the literature of diseases of the colon and rectum which is compiled from a wide range of journals and which is classified under various categories, so that the recent literature on a particular subject is readily available.

L.M.

TUMOURS OF THE LIVER

Tumors of the Liver and Intrahepatic Bile Ducts. By Hugh A. Edmondson, M.D. Pp. 216. 207 Figures. 6 Color Plates. \$2.25. Washington: Armed Forces Institute of Pathology. 1958.

Tumors of the Esophagus. By Arthur Purdy Stout, M.D. and Raffaele Lattes, M.D. Pp. 105. 58 Figures. 2 Colour Plates. \$1.00. Washington: Armed Forces Institute of Pathology. 1957.

The series of fascicles produced by the U.S. Armed Forces Institute of Pathology have gained universal recognition for the magnificence of their coloured illustrations, the clarity of their photomicrographs, the scholarly quality of their text and the range of their references. The latest additions are distinguished by the same virtues and hold a special interest for practitioners in South Africa where tumours of the liver and oesophagus occur with such an alarming and disproportionate frequency. Although primarily designed for pathologists, these monographs are invaluable to all physicians and surgeons who profess an interest in these organs. The authors have not set out to repeat time-worn conceptions, but have based their views and illustrations on their own experiences supplemented by the almost incomparable material made available to the Armed Forces Institute. Controversial points are dealt with clearly and usually illustrated with an abundance of plates in the belief that the visual picture is worth far more than pages of words.

These books are so skillfully planned that they may serve either as detailed works of reference or to provide a broad picture of the problems. It is refreshing to note how reasonably they are priced due, no doubt, to support by the American Cancer Society and others.

Like their companion volumes, they can be unreservedly recommended.

A.J.W.

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NEEDS FOR MEDICAL CARE

To the Editor: It is often useful to do the kind of book-keeping about services that Mr. Zwart¹ has attempted for Meadowlands and Baragwanath. But it may also be dangerous, especially if we allow ourselves to fall victim to fallaciously used statistics.

There is a fundamental fallacy in the way the material on attendances at Meadowlands and Baragwanath is presented. The writer assumes, without any qualification, that he is dealing with an ideal situation, in which the services provided meet all the demands of the community. Anyone working in this situation well knows that this is not so. The expressed demand is not synonymous with the needs of a community. Demand varies, amongst other things, with the provision of services—usually, the more effective provision there is, the more the service is used, i.e. it creates its own demand. Nor will all sections of a population make use of a service they may need. Many cultural and educational barriers are likely to prevent this. These 'unfelt needs' are ignored in Mr. Zwart's figures.

Mr. Zwart also seems to assume that there are no other agencies meeting the demand for medical care—such as private practitioners etc. Again, he implies that one community is exactly the same as another. From his very limited material at Meadowlands and Baragwanath alone, he asserts that he can predict the need for medical services not only in that area but for any 'urban Bantu community'. These are important weaknesses which affect the author's claim that he can predict needs for medical care. One must regard the claim as extravagant.

There are other weaknesses, perhaps of a less fundamental

nature, in the analysis itself. For example, a decline of self-referrals to Baragwanath is shown to be more or less parallel with the increase in patients referred from the polyclinic to Baragwanath. Mr. Zwart regards this as a casual effect. The decline may or may not be related to the opening of the polyclinic. No such assumption is justified without more detailed analysis of the patients themselves and more prolonged observation of the total situation, especially before the clinic opened. The period chosen—8 weeks of full operation and 13 weeks in all from the opening of the clinic—is too short to do more than suggest a trend.

By his neglect of references one must presume that Mr. Zwart believes that no one has preceded him in this field. From an extensive literature on medical care, I should like to draw attention to only two classical South African studies in neither of which the mistake is made of forgetting the people behind the statistics. These are the studies of Kark and Cassel at Pholela,² and of Kark and Stuart at Clairwood.³

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1. Zwart, W. (1958): S. Afr. Med. J., 32, 1037.

2. Kark, S. L. and Cassel, J. (1952): *Ibid.*, 1, 101 and 132.

3. Kark, S. L. and Stuart, G. W. (1957): *Hlth Educ. J.*, 15, 131.