involving steroids'. Those whose biochemistry is limited to that given in medical courses may find parts of the book hard going. The very large number of steroids, closely related in chemical structure but widely diverging in biological activity, is at the same time the main fascination and difficulty of the subject. As the authors point out, the difference between masculinity and femininity is only four hydrogen and one carbon atoms. The first chapter grasps this prickly problem of names and structures. It is difficult, and requires application and careful study. Then one proceeds to an easier, clear and useful account of the neuroendocrinology and sites of steroid biosynthesis. There are numerous helpful line drawings and photomicrographs of tissue sections. More chemistry follows. The pathways of biosynthesis and metabolism are dealt with in great detail. Structural formulae, trivial and systematic names are all given, although these names are repeated in Appendix I. Indeed, there is so much detail that in some tables the print is too small for comfortable reading. Despite this, one looks for more information about alternative pathways and factors deciding the route followed, matters of great importance in pathology. Work in recent years which has shown that cortisol is produced in man by pathway(s) not involving progesterone is not mentioned. This omission may be due to the long time taken to produce the book. There are only a few references to work published in 1969. The various enzyme defects, found in steroid hormone biosynthesis, which are of such great clinical interest, are very clearly dealt with in an excellent chapter on clinical aspects of the pituitary-adrenocortical axis. Indeed, this and the next chapter on the pituitary-gonadal axis are the best in the book. Finally, 58 pages are devoted to recent work. Here one finds *inter alia* information on the feedback of gonadotrophins, the comparison of menstrual and oestrous cycles, steroid muscle relaxants and the protein binding of steroids, including competitive protein binding analysis. It is disappointing that much more space has not been devoted to this very important subject of protein-steroid interaction.

In summary, this book contains a wealth of interesting and useful information. The medical reader will find the biochemistry difficult, but if he can persevere he will be well rewarded. It is certainly a book which should be owned and constantly referred to by those beginning to work on steroids in the biochemical, pharmacological or clinical field. Many others will wish to refer to it when they occasionally have to deal with steroids. There is a good index of 14 pages, and it is easy to find one's way about the book. The authors are to be congratulated on having undertaken and successfully completed the very difficult task of reducing the vast knowledge of steroids to manageable dimensions.

J. K. GRANT

CLINICAL NEUROSURGERY Proceedings of the Congress of Neurological Surgeons (Pp. xxiii, 420; illustrated; £7.50.) Williams and Wilkins: Baltimore. 1970.

This is the 17th volume in the series *Clinical Neurosurgery* and reports the proceedings of the Congress of Neurological Surgeons held in September 1969.

The book contains 14 papers on various aspects of neurosurgery as well as some matters personal to the congress. The papers are on topics so varied that it is difficult to evaluate the book as a whole, and in any case the interval of time has outdated the conclusions of some of them.

Seven of the papers deal with various aspects of peripheral nerve injury and repair. These give sound practical advice on the treatment of such injuries, the paper on nerve grafting is especially good, but little in the way of new principles or ideas emerges from them.

A paper on the treatment of spasmodic torticollis by cervical rhizotomy has almost an old-world flavour and the author's statement that 'evaluation of the effects of surgery is difficult' and the fact that only four patients from a series of 50 considered themselves to be cured indicate the value of this treatment. There is no mention of the results of stereotactic surgery nor of the hypothesis that most, if not all, cases of torticollis are manifestations of a more widespread dystonia.

Four papers deal with pituitary or parasellar lesions and include an excellent account by W. F. Hoyt of the anatomy of the optic chiasm.

Dr. Yasargil deals with intracranial and spinal microsurgery in his usual authoritative manner and there is an excellent paper on concomitant craniocerebral and spinal trauma by Richard C. Schneider.

With such a pot-pourri of papers on widely differing aspects of neurosurgery it is difficult to assess the usefulness of printing a permanent and expensive (£7.50) record of the congress. No doubt it will remind those who attended it of the many wise words spoken. For those who did not, the passage of time will have lessened the value of some of these papers and they will probably prefer to acquire their information from more recent papers in the specialist journals.

BRODIE HUGHES

SEPTIC COMPLICATIONS OF NEUROSURGICAL SPINAL PROCEDURES By R. Lewis Wright. (Pp. viii + 107; illustrated; \$9.50.) Thomas: Springfield. 1970.

This well-produced monograph is based on a study of 2,085 'clean' operations performed by several neurosurgeons in the Massachusetts General Hospital during the period 1952-65, with a post-operative infection rate of 4.1%; and a further 579 operations from 1966-68 when it fell to 0.3%. The reason given for the reduction in infections was the introduction of ultraviolet radiation in the operating theatre at an intensity of 35 micro-watts/sq cm, at the operating site: in addition, more intensive maskings and gowning, and less activity of theatre personnel was instituted. Ultraviolet theatre radiation was described by Wells and Wells in 1936, and in the same year by Hart, but has never gained popularity. There must be bacteriological and technical reasons for this.

The book is a sequel to the author's previous work on 'post-operative craniotomy infections' (1966), and similar significant factors concerning post-operative infection are noted, including operations of long duration, re-operations, excess activity of theatre personnel and the drainage of wounds. On the other hand the age of the

patient, the presence of concomitant medical disease, season of the year, duration of hospitalization, seniority of the surgeon, and the type of suture material were not found to be significant factors. The author is less certain about the use of antibacterial agents, especially topical bacitracin, in preventing infection.

Most of the infections occurred in patients undergoing lumbar disc protrusion surgery. Surprisingly the author recommends excision and packing, and healing by secondary intention as the optimum method of treatment in these cases.

No details are given regarding the ventilation of their operating theatres, but reference is made to the use in other hospitals of 'laminar' ventilation (better named 'unidirectional flow ventilation'), which has superseded ordinary plenum systems. There is no mention of the order of the infected operation case in the operating list, or the day of the week, or the apparent source of the infection. Nor are we told if the infections appeared sporadically or as an 'epidemic'. There is scanty reference to bacteriological aspects and this is a notable fault of this otherwise valuable study, which includes a useful survey of the literature on the subject of post-operative wound infections in general, and in neurosurgery in particular.

P. HARRIS

BAYER-SYMPOSIUM II: NEW ASPECTS OF STORAGE AND RELEASE MECHANISMS OF CATECHOLAMINES Edited by H. J. Schumann and G. Kroneberg. (Pp. 301; DM. 48.) Springer: Berlin. 1970.

Book versions of symposia have, deservedly, gained a dubious reputation in recent years. Many are no more than ill-edited, overwordy collections of papers sold at an inflated price. This book, which comprises the papers given at a Bayer Symposium in October 1969 is, on the contrary, a model of what should be done. The concept that catecholamines are taken up as the intact molecule into the neurones which released them originated some 10 years ago; uptake into extraneuronal cells is an even newer idea. The rate of development has been extraordinarily rapid, reflecting the intense interest and, therefore, the number of workers engaged in the field. The interest stems not only from the important theoretical ideas involved but also from the widespread implications in clinical medicine. For example, the mode of action of many drugs used as antihypertensives involves uptake into the adrenergic neurone.

The present volume fills the need to bring workers up to date with these rapid recent developments in a compact, carefully edited series of papers. The contributors have been selected both as representatives of the most rapidly developing aspects of the field and for their individual authority. A short, edited account of the discussion following each paper provides a valuable counterpoint to the authors' thesis, underlining the areas still in dispute and posing the questions for tomorrow's research.

The book is well produced, including the electron-micrograph and coloured histochemical plates; and finally, the price is reasonable.

This is a volume which can be wholeheartedly recommended to every medical and biological science library

and to a much wider readership of individual medical and biological scientists, including senior undergraduate students.

J. S. GILLESPIE

PEDIATRIC NEUROLOGY By Ingrid Gamstorp. (Pp. xiii + 394; illustrated; £9.00.) Butterworths: London. 1970.

We have recently reviewed a number of books on paediatric neurology, reflecting the growth in status of this specialty in other countries and which will surely follow in Great Britain. Dr. Gamstorp is well known for her work on disorders of muscle. She is one of the distinguished few to have a disease named after her. It is, therefore, natural that the chapters on peripheral nerve and muscle are superb. The book is clinically orientated, being arranged according to the dominant symptom, such as convulsions, mental retardation, ataxia, involuntary movements, headache, etc., or in categories such as abnormal growth of the head, malformations, etc. There is a wide coverage but a book of this size cannot devote space to detailed description or review of controversial material. Indeed, the dogmatic approach, so satisfactory for the beginner, may be less acceptable to the experienced neurologist with a difficult paediatric problem. For instance, the presentation of the neurological complications of infections and immunizations is too brief. The most worrying problem for the neurologist with limited paediatric experience is the progressive neurological and mental deterioration, including necrotizing encephalopathy, but the descriptions are too short to be helpful. On the other hand, the examination of the newborn and older children and the use of ancillary methods of investigation are excellent.

The production is very good, well printed and with unusually good illustrations, some in colour. The book is assured of a welcome.

J. A. SIMPSON

HANDBOOK OF CLINICAL NEUROLOGY: Leucodystrophies and poliodystrophies. Edited by P. J. Vinken and G. W. Bruyn. Volume 10. (Pp. 699; illustrated; £23.30) North - Holland: Amsterdam. 1971.

'Today, there exists an extraordinary confusion with respect to the diagnostic implications of the term amaurotic familial idiocy and its subtypes, classified either eponymically or by the age of onset.' Thus Wolfgang Zeman introduces his chapter in Volume 10 of the *Handbook of Clinical Neurology*. This observation might justifiably be extended to all the conditions described in this volume devoted to the leucodystrophies and poliodystrophies. Even the original title '*leucodystrophies and lipidoses*' was considered to be inexact and was consequently changed during its preparation.

Most neurologists have a passing familiarity with these diseases and perhaps feel in view of their rarity and the absence of active treatment that this is all that is required or is justifiable. Furthermore, individual experience shows that standard classifications are either imprecise or too exclusive. One result has been a deplorable tendency to make qualified or hybrid diagnoses, adding to the difficulties of understanding and bringing the classifications into further disrepute.