Book reviews

ULTRASONIC ENCEPHALOGRAPHY By D. N. White. (Pp. vii + 285; illustrated; £6). Medical Ultrasonic Laboratory, Queen's University, Ontario, Canada. 1970.

Ultrasonic encephalography has a limited place in the diagnostic armamentarium of a neurological department. Its potential role in detection of midline shifts in head injuries and for screening patients who might require to be sent long distances for specialist advice has led to its increasing use in peripheral hospitals. Unfortunately, it is apparent from this careful study that these are the very circumstances which are likely to predispose to false results. Professor White has produced an excellent book which should be studied carefully by anyone using the technique. The chapters on elementary acoustics, the interactions of ultrasonic energy at interfaces and their imaging, the artefacts introduced by receiving systems, and the acoustical properties of the skull are essential reading. These are followed by a careful analysis of A-mode encephalography with a valuable study of the bias introduced by the operator. Specialized methods to reduce bias in midline echo detection are then discussed and the special problems of reflection from other surfaces such as cerebral tumours, hydrocephalic ventricles, etc. The book closes with chapters on B-mode display, indicating why it has been disappointing and is likely to remain so, and on advanced techniques such as acoustical holography, intracranial echo pulsations, Doppler and contrast techniques. It may be hoped that these new methods may make it easier to standardize technique and to recognize the source of an echo, but the acoustical properties of the skull will always remain a major limiting factor.

This is an excellent book which should be required reading for those using echo encephalography.

J. A. SIMPSON


This small volume describes a clinical neurological examination suitable for children aged 3 to 10 years. It is designed to detect the presence, or confirm the absence, of neurological signs in situations where the history gives no clear lead. The examination was developed during the follow-up of babies who received careful neurological testing in the newborn period. It is presented as particularly suitable for the evaluation of children with disorders of behaviour or learning, in whom minor motor dysfunction, unrecognized by society, may prove a major handicap. It may also be employed in overt neurological disorder, as in assessing the 'good' hand of the hemiplegic. The examination is non-classical and developmentally based (though not a formal developmental assessment). It aims to be comprehensive, but the authors deliberately exclude detailed analysis of vision, hearing, visuo-spatial ability, speech and language, etc., not only because of limitations of time and the availability of specialists in these other fields, but because they believe objectivity is improved by making these other assessments independent. Those familiar with Prechtl's earlier monograph on the examination of the newborn will recognize an old friend grown up. In the present work the same emphasis is laid on the correct conditions for examination, the technique of handling the child, the behavioural state (to which is now added the social responsiveness), and the standardized sequence of tests. The tests themselves are described in detail with the aid of 54 illustrations. They are each in a suitable form to be coded and a proforma for recording the results is reproduced as an appendix. In practice, the examination is time consuming and demands considerable expertise. Before recommending its use on a wider scale, one would like to see statements about reliability and validity statistically demonstrated, and at present it may remain a valuable research tool. This is not a book for the beginner, but it will repay careful study by all who

Quite obviously the book is written by a master of his subject (neurology) who has also a wide knowledge of general medical disorders which might at first glance strike one as purely neurological ones.

The case histories are often entertaining detective work until the true nature of the disease becomes apparent. To support the excellent text, there are well-reproduced radiographs as well as other illustrations.

More such books which retrospectively survey a lifetime of experience are needed and not only in neurology. The reviewer found the book a refreshingly new approach to problems and recommends it to neurologists and general physicians alike.

J. SCHORSTEIN


This is not a book for the novice in neurology, but it addresses itself mainly to those in training. Yet, even the experienced specialist may find cause to say 'mea culpa' in perusing this well-balanced book.

It consists of two parts: in the first the author describes the causes for failure of the correct diagnosis having been made. In the second, each cause is illustrated by case histories. The causes listed are, among others, insufficient terminology, insufficient case history, insufficient or mistaken interpretation of symptoms. Modern diagnostic methods such as angiography, detailed radiographic diagnosis, electroencephalography, and electromyography are also discussed and evaluated.
are concerned with the objective basis of the neurological examination, whether in children or in adults.

J. B. P. STEPHENSON


There has been an increasing interest in this group of diseases in the last two decades. They are genetically determined, occur in early childhood or infancy, and are invariably fatal. A link between these diseases and disseminated sclerosis in the adult is perhaps the great incentive which spurs research workers on in the investigation of these diseases whose riddle is slowly giving way to refined methods of biochemistry and electron microscopy.

We know that metachromatic leucodystrophy is due to the faulty accumulation in the nervous system of sulphatide because an enzyme-sulphatase is lacking. The diagnosis can now be made with accuracy during the child's life-time by biopsy of a peripheral nerve. The defect in sulphatase can also be determined. In Krabbe's disease there appears to be a lack of sulphatide because its construction out of cerebroside and sulphate groups has been rendered impossible. The term 'Schilder's disease' is now to be dropped entirely, for it obscured the multiplicity of diseases which are to be recognized.

The author of this monograph has marshalled all the recent scientific discoveries about the demyelinating diseases in nine chapters dealing with each disease from the clinical, chemical, and pathological points of view. Added to this, there is a Table giving the outstanding features of published, and the author's own, cases in a precise and useful manner.

Since these are rare cases, the monograph is likely to have its main use as a work of reference, and as such, it is to be highly recommended.

The value of the monograph is enhanced by exhaustive literature references, and some instructive illustrations.

J. SCHORSTEIN


This volume, in the usual format of the series, is a concise and up-to-date account of the epidemiological studies carried out by Dr. Millar and colleagues in Northern Ireland, placed in the context of similar studies elsewhere. The time is opportune as the era of static populations is fast disappearing. Dr. Millar reports that there is a significantly greater risk of developing multiple sclerosis in rural areas than in an industrial city. Considering various hypotheses to account for this, the author favours infection in childhood, by an unidentified organism (possible measles virus) with delayed immunological reactions which may be genetically determined. He reviews the biochemical findings and considers that the reported changes are secondary. Dietary factors may be contributory but a trial (in London and Belfast) of treatment with oral linoleic acid was inconclusive. Treatment with ACTH, immunosuppressive drugs, and symptomatic management are discussed. The bibliography is well selected.

In a short space Dr. Millar has made a bold attempt to combine existing epidemiological, pathological, and experimental data in a unifying hypothesis which carries with it the prospect of ultimate preventative measures. He makes a good case. The book is recommended reading which most will want to have in their bookcase.

J. A. SIMPSON


For the past 20 years spinal analgesia in this country has been little practised due to the remote but definite possibility or neurological sequelae and the resulting medicolegal consequences. More recently, however, the technique has been reappraised and more frequently employed. This in part has been due to a more balanced view being taken of the advantages of the technique in some clinical situations when weighed against the risks of alternative procedures. The present position would seem to be that, provided the anaesthetist uses every care and exercises all the skill expected of him, the technique is acceptable if there is an indication in a particular patient.

This textbook provides all the relevant information on drugs and methods on which the anaesthetist can build a faultless technique. It commences with a historical review of the whole subject and goes on to discuss in a most lucid fashion the relevant anatomy, physiology, pharmacology, and available equipment. The indications and, of course, complications are rightly given a considerable prominence in the text but, more importantly, the avoidance of complications is treated at considerable length. Overall, this is an excellent and well-illustrated book which should find a place on many anaesthetists' shelves, whether they are regular or occasional employers of what is deservedly becoming a more popular technique.

ALEX. C. FORRESTER


This book records most of the proceedings of a workshop on the subjects of its title held in Detroit. The fact that this is the published record of a 'live' conference is shown by a few typographical errors and by the informality of style of some of the remarks.

The best chapters include an initial general review by Dr. Gurdjian, a description of bone changes with age, the metabolic abnormalities of bone disease, a study of neck injuries in volunteers and in human cadavers (including experiments using a crash simulator). Dr. Wickstrom and his colleagues report on some fascinating data on experimental hyperextension and hyperflexion injuries, and Dr. Earl Walker's excellent clinical review of head and neck injuries with an intriguing emphasis on stresses of the medullo-spinal junction in the genesis of
THE NEUROLOGICAL EXAMINATION OF THE CHILD
WITH MINOR NERVOUS DYSFUNCTION

J. B. P. Stephenson

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