Stereotaxis in Parkinson Syndrome By R Hassler, F Mundinger, and T Riechert (pp 315; DM 280, $156.80) Heidelberg: Springer Verlag, 1979.

This is a beautifully produced volume by three acknowledged experts in the field of stereotactic procedures for Parkinsonism. A series of clear, coloured diagrams plainly depicts their concept of the neuronal pathways involved for the development of the clinical syndrome as well as for the placement of lesions for the relief of rigidity and tremor. The authors report on nearly 3500 operations with the low mortality rate of 0.8%. From post-mortem material their stereotactic method was seen to have achieved a high degree of accuracy. Electrical stimulation was used for a physiological check for the position of the lesion to be made, using a bi-polar electrode with a gap of 5 mm which, of course, would cover a relatively large area of the thalamus. Little mention has been made of the electrical recording in the thalamus as pioneered by French and Canadian workers in this field; this method provides a unique opportunity for further research into the normal thalamus and regrettably has been lost.

There is an atlas made from sections at 2 mm intervals in the frontal plane through a normal thalamus of a sufferer from Parkinsonism, with photographs of fibre and Nissl preparations superimposed on a grid. It is gratifying to see that the FM-PC plane is used for the base line and reference points. Perhaps because of the small magnification of ×5, the rationale for some of the boundary lines of the named compartments is not always clear. There is thought to be no need for a variability study since the authors relate the target zones to the mid-point between the foramen of Munro and posterior commissure. This view does not accord with one detailed variability study of the thalamus where the anterior border of CeM, an easily recognised structure, has a scatter of 4 mm in the sagittal plane, and the spread is greater if the mid-thalamic plane is used (which is perhaps comparable to the middle of their “base line” of the thalamus) rather than the posterior-inferior margin of the foramen of Munro. In this atlas the CeM does not appear until 18 mm posterior to FM, which the reviewer considers to be 4 mm more posterior than usual.

Some surgeons will disagree that a pallido-thalamic interruption is the more desirable lesion for rigidity, and a more posterior dentatothalamic lesion for tremor. It is the experience of the reviewer that a 6 mm long coagulation, whose posterior limit extends into that zone where electrical responses are obtained from muscle stretching in the opposite upper limb, gives good relief from both tremor and rigidity, and it probably lies in what the authors call Vim and Vop.

These are perhaps minor criticisms of a most careful and comprehensive work which should be in the possession of all those engaged in this field.

JOHN ANDREW

Multiple Sclerosis in Childhood, Diagnosis and Prophylaxis By EJ Field (pp 111; $12.75) Springfield: Charles C Thomas, 1980.

Over the past decade Professor Field's work on immunological abnormalities in multiple sclerosis has aroused considerable interest. It is useful to have this work summarised in a single volume in which a variety of laboratory tests are described in considerable detail and claims made that they are of value in diagnosis of patients with the condition, as well as in detecting potential sufferers from multiple sclerosis. In essence, Professor Field thinks that patients who have clinical evidence of multiple sclerosis have an inherited defect of membrane metabolism—the membrane of oligodendrocytes possibly sharing this defect—which renders them susceptible to the disease. Furthermore, he believes that laboratory tests of changes in the electrophoretic mobility of lymphocytes, red blood cells and macrophages induced by two particular unsaturated fatty acids (linoleic and arachidonic acids) can differentiate not only patients with clinically definite multiple sclerosis, but will also detect relatives of such patients who have inherited the membrane defect necessary to acquire the disease. He further claims that these deviations from normal may be corrected by giving unsaturated fatty acid supplementation, and extrapolates from this into the area of prophylactic therapy, believing that correction of the defect in childhood will prevent the development of multiple sclerosis later.

Needless to say, there has been considerable debate about Professor Field's work both at the laboratory and clinical levels. The techniques involved in assessing electrophoretic mobility are fastidious in the extreme, a point emphasised by the author. The accuracy of timing of migration of the various cells has been questioned, and certainly the magnitude of alteration of mobility is near to the limits of visual timing. Perhaps more controversial, is the concept that there is an inherent defect in the cell membrane of patients and their relatives, and that this is the fundamental defect in multiple sclerosis, correction of which will prevent the disease. Professor Field has claimed that it is possible to use his laboratory methods for the early diagnosis of multiple sclerosis in children who have relatives with multiple sclerosis, and in patients with the first suspicious symptom or sign.

The whole problem of whether the abnormality detected by Professor Field lies in defects of the membrane of the marker cell or the plasma, has been questioned, a point discussed but rejected by the author. Even if this is accepted, many neurologists would be doubtful of Field's claim that prolonged administration of gamma linoleate to children at risk will later prevent them developing clinical signs of the disorder.

The statement by the author that gamma linoleate is beneficial to patients with established multiple sclerosis is crucial to his hypothesis, but without convincing foundation. He wrongly quotes the only double blind trial of the use of this substance in multiple sclerosis (Bates et al 1978) which showed that if anything, gamma linoleate was harmful. This is a poor rationale for giving such a substance to children who by a series of laboratory tests are thought to be at risk of developing multiple sclerosis. Furthermore, the author glosses over the problem of giving prophylactic therapy to children, particularly the profound psychological difficulties that can arise.
It is the reviewers’ opinion that a double blind trial is necessary before establishing such a programme, even if the many contentious aspects of the methods and their interpretation are accepted. All clinicians, scientists and publishers have a moral duty to ensure that undue optimism or anxiety are not engendered by their publications and hypotheses.

AN DAVISON AND P RUDGE

Reference


The contribution of hereditary factors to the development of seizures has generated some of the most powerful mythology of epilepsy over the centuries. For this reason epileptic patients and their relatives are undoubtedly anxious to know the truth about the risks of passing on the disorder to their offspring. Some of the questions raised are difficult for the clinician because the subject is complex and has been inadequately researched. Further the data, much of which is conflicting, is not readily available. The authors of this slim volume have therefore provided a very useful service in summarising our meagre knowledge of the genetics of epilepsy. They rightly point out the problems of studying a disorder which is so difficult to define and classify, which can be symptomatic of so many other diseases of the nervous system, and which is further confused by incorporating EEG data, with all its inconsistencies and mysteries.

The book is divided into three principle sections; a discussion of the indirect evidence of inheritance of epilepsy, such as animal studies and hereditary diseases of chromosomal abnormalities associated with epilepsy; a review of the direct evidence of inheritance such as twin studies, clinical studies of probands and relatives, EEG studies; and a consideration of the influence of certain factors such as age and sex, and the significance of family history for prognosis. The book is essentially a summary of present knowledge emphasising clearly how little we know. Of the 117 pages over 50% are taken up with tables and references. However it also provides useful evidence for the clinician with which to dispose of many of the more exaggerated ideas of the influence of inheritance. One weakness is that it does not include photosensitive epilepsy, which will apparently be the subject of a separate volume. This is a pity as it provides some of the more solid evidence for the influence of hereditary factors and would have illuminated much of this text.

This book will be indispensable to those wishing to dip into the subject for the first time, and hopefully will be a stimulus to some to undertake more rigorous studies with modern methods.

**E REYNOLDS**


This book is written by an American orthopaedic surgeon with a very wide experience of cerebral palsy. Its strength therefore is that the pros and cons of surgical intervention are discussed by someone who has tried the major procedures and reviews both his own experience and that of other surgeons. Any orthopaedic surgeon, paediatrician or physiotherapist needing such a detailed discussion including descriptions of the surgical procedures will find this book an invaluable source of information. The author consistently attempts to keep the reader thinking in a dynamic fashion about motor problems and uses gait electromyography quite extensively in assessment. The reader is encouraged to think in a commonsense, goal orientated fashion. The author discusses upper limb surgery in detail but the reasons for varying enthusiasm for such procedures amongst orthopaedists are not.

The problems with the book are several but really inevitable in a single author book on such a complex subject. Spastic hemiplegia, diplegia and quadriplegia are really all that the author deals with and it is most people’s experience that the incidence of the first two varieties has fallen and that relatively speaking rigid extrapyramidal disease and ataxia have assumed a greater proportion of the work. In fact, all of the surgical manoeuvres required for managing patients who do not fit into the original classification are available but the picture given of the natural history of cerebral palsy is over simplified. The author’s belief in performing multiple procedures on occasions makes one concerned whether all are critical to the operation’s success or that less experienced surgeons should follow this example. Whilst bracing is given the expected thorough treatment there is rather less critical analysis of special seating. In patients with total body involvement orthotics and physical therapeutic methods are dismissed as ineffective in the prevention of hip dislocation and yet seating emerges as a useful prophylaxis after surgery to a dislocating hip. It is in patients with total body involvement that the simple muscle imbalance theories of the origins of joint deformity fail to convince and that the wide variation of clinical problems make for difficulties in testing of all types of treatments. Perhaps some mention of the pre-operative and post-operative management of very severely mentally retarded patients would have been of interest. However, it is good to see that the author is prepared to be actively involved in the management of non-ambulant patients.

This book is therefore to be recommended as a most important source of information on the orthopaedic management of cerebral palsy.

**B R NEVILLE**

**Priorities in Psychiatric Research** By Malcolm Lader (pp 231; £13.50) Chichester: John Wiley & Sons, 1980. This book is based on a symposium concerned with priorities in psychiatric research and organised by the Mental Health Foundation, held in September 1979. In most instances the speakers have expanded their originally rather brief scripts into more detailed reviews. The result is a series of chapters by experienced research workers who consider the present status and the possible future development of important areas of psychiatric research. The book is not, as are so many symposia publications, a collection of reports of already pub-