degenerative diseases to see how these authors had approached the vexing problem of classification of the spino-cerebellar degenerations. The stance that they have taken is unusual, for they have used inheritance of the primary method of classification. Recessively inherited ataxias are then divided according to whether the tendon reflexes are reduced or exaggerated, and each sub-group is further subdivided according to the age of onset. The autosomal dominantly inherited group includes most of the types of olivo-ponto-cerebellar degeneration, as well as familial spastic ataxia, Holmes' olivo-cerebellar degeneration and a number of other entities. Finally, a third group of miscellaneous ataxias of metabolic, or unknown origin also is included. The difficulty with this approach is that many cases of spino-cerebellar degeneration are sporadic, so cannot be attributed with confidence to any of these categories. It is appreciated, however, that there can be no universally acceptable method of approaching this group of diseases until their metabolic background is more extensively understood.

The final chapter is a valuable and instructive review of the place of cerebellar stimulation in the management of epilepsy, cerebral palsy and movement disorders. Coming as it does from a group actively engaged in assessment of this novel therapeutic procedure, it is a relief to find a cautious and sensible assessment. There can be no doubt, as is pointed out by the authors, that a large number of patients have been subjected to cerebellar stimulation without adequate assessment of the real value of the method. The few double-blind studies comparing performance with and without stimulation have not shown evidence of therapeutic benefit. However, improvement appears to occur gradually during weeks or even months of long term stimulation, so that short double-blind trials may not have detected real changes. The parameters of stimulation may be crucial, for experimental studies in animals have shown that surface stimulation of the cerebellum may increase, decrease, or cause a complex sequence of changes in the excitability of Purkinje cells depending upon the frequency and intensity of stimulation. Clearly more work needs to be done before the optimum use and value of this technique can be assessed.

In conclusion, this book on the cerebellum is a worthy successor to Dow and Moruzzi's earlier monograph. Essentially

it is a work of reference, which might be slightly improved by providing summaries liberally at the end of each chapter or section. I suspect that every library will have to purchase two copies, one of which will have to be kept hidden, and any individual interested in the cerebellum will be well advised to purchase their own volume.

CD MARSDEN

Spasticity: disordered motor control. Edited by RG Feldman, RR Young and WP Koella. (Pp 500; £46.50.) Symposia Specialists Inc. Medical Books. 1980.

To judge from this account of the proceedings, a remarkable international symposium on spasticity supported by Ciba-Geigy Limited was held in Arizona in March 1979. Many of the acknowledged experts in this field were present and presented thoughtful and detailed papers followed by unusually informative discussions in which their differing views were explored and argued. As with all symposia, some relatively lightweight contributions do appear and the order of the papers is not particularly logical, but there is no better collection of current views about the mechanisms of clinical spasticity than this. Denny-Brown opens with a lucid account of his concept of spasticity and the complex and variable disability resulting from the loss of one or more of many factors concerned in the initiation of movement, often associated with, but physiologically distinct from, flexor spasms. This can be read in conjunction with the later chapter by Tasker and his colleagues on animal models of spasticity. A more generalised brief discussion about the definition of spasticity (Landau) is followed later by an excellent review, based on the prolific output of his own group, by Lance and a final laying to rest by David Burke of the belief that spasticity is caused by increased fusimotor drive. Feldman and his colleagues evaluate the various clinical assessment schemes that have been used to measure disability in multiple sclerosis. Experience has shown that idiosyncratic assessment schemes limit the value of clinical trials and this article will be very useful for those wishing to select a method of suitable assessment for one particular study. Pedersen presents an evaluation of bowel and bladder function with some preliminary observations of interest. Electrical measurement of reflex responses, as part of the assessment of spasticity is recom-

mended by Dimitrijevic and Lenman, Sax and Johnston and Delwaide. Their views differ, and although well known to those closely involved in this field, they are here set out in a way that invites comparison and leads to spirited attacks upon the methods used, and equally spirited defences of them. More direct information about alpha motor neurone control can be derived by studies of motor unit firing patterns and the capacity for voluntary control of muscle activation, described by Andreasson and Petajan. Knutsson summarises his excellent studies of the restraint actually imposed by antagonistic spastic muscles during voluntary movement. Clearly, the therapeutic gains to be expected from suppressing spastic muscle tone cannot be more than modest and this is confirmed by subsequent chapters describing the efficacy of the drug baclofen in clinical practice, showing that functional gains are best in patients with flexor spasms and that it is clinically more popular among patients whose spasticity is caused by lesions of the spinal cord. The pharmacology and kinetics of baclofen are then reviewed in detail towards the end of the book.

This book does not pretend to cover the range of treatments used for spasticity, except in so far as the sponsors' interest in baclofen is concerned. One notable omission from the range of expertise consulted here is that of physiotherapists, whose contribution is recognised in discussions by the big names but who are toasted as absent friends. Since many clinicians are only now starting to appreciate what physiotherapists have been telling them for the past 15 or 20 years, it is time that their observations were brought more directly into discussions of this kind. Therapists interested in the mechanisms of spasticity will find it a useful and challenging source of information. All in all, it is an excellent book which deserves a large readership; unfortunately its high price will mean that most will have to read it in their hospital library, but anyone with a serious interest in clinical spasticity should have ready access to this book.

DL MCLELLAN

Neuro-oncology. Clinical and Experimental Aspects. Edited by BW Ongerboer de Visser, DA Bosch and WMH van Woerkom-Eykenboom. (Pp 261; Dfl 75.00.) The Hague: Martinus Nijhoff. 1980.