potential for spontaneous recovery; more severely disabled patients were also by chance randomised to active treatment in this group.

Physiotherapy was offered only to patients in the relapse group, but since almost every individual receiving iv MP was discharged from hospital after one week, in practice none was treated in this way. Conversely, controls remained longer in hospital and received physiotherapy; if physical treatment improves disability during relapse

this arrangement will have underestimated the effect of iv MP during acute relapse. Some patients in the chronic progressive group were receiving muscle relaxants at presentation and these were maintained throughout the trial; no new treatments were introduced until after the assessment at one month.

We accept that there are limitations in the design and size of this study, but our practice is now to use iv MP on an open basis during relapse and as a means of reducing

motor disability in patients with chronic progressive disease.

Reference

- 1 Milligan NM, Newcombe R, Compston DA. A double-blind controlled trial of high dose methylprednisolone in patients with multiple sclerosis: 1. clinical effects. *J Neurol Neurosurg Psychiatry* 1987;50:511-6.

Book reviews

Survey of Functional Neuroanatomy 2nd ed. By Bill Garoutte. (Pp 210; £11.00.) California: Jones Medical Publications. UK Distrib: Wolf Medical Publications, 1987.

This short paperback is a carefully prepared and accurate introduction to neuroanatomy. It is succinct, clearly written and in broad strokes covers the main areas of the subject. In addition to the gross morphology, it touches briefly on the embryology of the emergent brain and outlines the essentials of histology. The text is liberally illustrated with clear schemata and line diagrams—many taken from older texts. At the end of each section there are clinical examples with questions for the student, followed immediately by a concise answer. These will add to the interest, though the examples are a bit too brief and sometimes glib.

The attempt to blend the physiology, a smidgeon of transmitter chemistry and some clinical tasties will appeal to the student reader. The coverage is however, uneven; for example the section on basal ganglia gives little information about the mechanisms or applied neuroanatomy of Parkinson's disease and the chapter on sensory pathways, perhaps wisely, evades the complexities of pain. It is nonetheless an attractive little book. For the 2nd MB student it is too superficial, except as an introduction. It does not rival, but would admirably complement the vastly improved recent editions of Manter and Gatz, Snell, or Barr. I think it would be invaluable for nurses, speech therapists or physiotherapists—"health science professionals" (sic).

JMS PEARCE

Clinical Applications of Computer Analysis of EEG and other Neurophysiological Signals. Edited by FH Lopes da Silva, W Storm van Leeuwen, A Ramond. (Pp 506; \$160.00.) Amsterdam: Elsevier, 1987.

This is part of a revised series of the *Handbook of Electroencephalography and Clinical Neurophysiology* covering various aspects of computer processing of EEG, evoked potentials and electromyography (EMG) data. Of the 13 chapters nine are devoted to EEG, three to evoked potentials and one to EMG. Although the book is entitled *Clinical Applications*, the opening chapter is on automatic artifact detection which provides a comprehensive assessment of the means of minimising or rejecting unwanted signals. As most of the methodology is described in Volume 1 its contents for cross reference would have been welcome in Volume 2. An area where computers have provided the much needed facility for data reduction and detection of certain trends is in the long term monitoring of EEG, but now the question is whether it is of value in monitoring cerebral function during surgery affecting brain circulation and metabolism. This and the more practical problems associated with long term EEG recordings are considered in detail but the role of evoked potentials in intra-operative monitoring is rather inadequately covered in three paragraphs.

The clinical applications considered in this volume are those of quantitative EEG in epilepsy, cerebral ischaemia, and renal disease. Clinical applications of evoked potentials have been omitted. This is a serious omission since evoked potentials have contributed significantly to differential diagnosis and now form a major thrust of any clinical neurophysiology department. The advantages of quantitative EEG and EMG in various conditions including psychoneuropharmacology are well illustrated showing how new avenues of research have made use of these measures.

The advances in microprocessors and their cheap memories have made quantitative EEG more accessible but, as the chapter on computer analysis in epilepsies concludes, there is a fair way to go before totally error free automatic detection of specific EEG patterns (eg. epileptiform activity) is possible, thereby making the analysis completely objective. Another technique only made practical with computer databases is neurometrics which provides statistical comparison of patient data with large normative database. This is comprehensively covered for both EEG and evoked potentials. The chapter on sensory potentials actually provides a normative database gathered from a large number of published studies. New techniques in the estimation of evoked potentials and their source localisation using large electrode arrays and spatial maps have been evaluated in terms of their practical value. This chapter concludes that the role of computers in the study of topographic maps is limited to the generation as the analysis is generally still subjective. The chapter on signals of cognition highlights the hypotheses and models of psychological processes associated with various event related potential peaks. As in the past, technological advancement and its transfer to the study of electrophysiology will lead to a better understanding of the underlying neurophysiological processes. In this regard this volume provides an excellent account of the computer based analysis and applications of EEG and EMG as practised at present but I feel that insufficient emphasis has been given to evoked potentials.

ID K PRASHE

Diabetic Neuropathy. Edited by Peter Dyck, P K Thomas, Arthur K Asbury. (Pp 322; £55.00.) London: W B Saunders, 1987.

This is a monograph on diabetic neuropathy