Book reviews

Epilepsy and GABA Receptor Agonists Basic and Therapeutic Research (*L.E.R.S. Monograph Series, Vol 3*). Edited by G Bartholini, L Rossi, KG Lloyd, PL Morselli. (Pp 496; \$35.00.) New York: Raven Press, 1985.

Do not be misled by the title of this monograph. This is a beautifully produced volume about progabide and its possible therapeutic efficacy in epilepsy. It comprises 45 chapters representing the proceedings of a symposium organised by Synthelabo in 1984. Half the contributions concern basic studies including pharmacology and toxicology and the remainder concern clinical studies of progabide, principally in epilepsy. The basic studies are focused on progabide and many leading scientists in the area of GABA agonist research are not represented. The material has been well edited. Minor lapses include the same data being presented more than once (for example, the figure that appears on both pages 5 and 69) and occasional inaccuracies (for example, on page 142 "most of the clinically effective anticonvulsants show little or no efficacy in *Papio papio*").

Basic and clinical studies on progabide have raised many novel questions about the role of GABA in neurological and psychiatric disorder. The first chapter by Bartholini and colleagues presents a very effective summary of these problems. Progabide and its major metabolite SL 75102 are here stated to show potency at the GABA A and B recognition sites comparable to that of GABA itself. However, in a subsequent chapter, Bowery and colleagues state that progabide is three to four orders of magnitude less potent than GABA and SL 75102 two orders of magnitude less potent. In animal models progabide undoubtedly shows activity indicative of potential clinical value in epilepsy, depressive disorders and spasticity. It does not show activity indicative of anxiolytic action comparable with that of benzodiazepines. Acute toxic side effects of progabide in animals and man are undoubtedly less than those of the more potent specific GABA A agonists, muscimol and THIP. The claim made by Bartholini and colleagues that progabide does not modify normal function but affects only pathologically disturbed inhibitory mechanisms is a very interesting one. The molecular basis of this is not yet clear.

The place of progabide in the therapy of epilepsy, depression and spasticity will be

decided only after several years more research. This volume when read critically provides a valuable summary of the present state of our knowledge.

BS MELDRUM

Biorhythms and Epilepsy. Edited by A Martins da Silva, CD Binnie and H Meinardi. (Pp 254; \$46.50.) New York: Raven Press, 1985.

This book is the proceedings of a meeting which took place in Oporto, Portugal, in 1985. The editors describe it as follows: "This volume, the first of its kind, contains state of the art reviews and current work on chronobiology of epilepsy, chronobiological methodologies, physiological basis of circadian rhythms, influence of drugs on the time distribution of epileptiform events, sleep and epilepsy interactions and automated detecting systems for data analysis and reduction."

Anyone other than a committed specialist in epilepsy would surely quail at such a list, and even the experienced practitioner might have some qualms about it. It is in the nature of books which are the proceedings of conferences to be uneven, with some unreadable presentations, and much fruitless discussion. This one is no exception. However, it is interesting in that it brings together the rather sparse literature on the relationship between biorhythms and epileptic seizures, and mentions a number of early studies which suggest that the subject is of potential significance to those of us who treat seizures. Most of the papers are devoted to the relationship of epilepsy to the sleep/wake cycles, and some interesting data are described showing ultra diem cycles related to seizure occurrence which are independent of periods of sleep. If these early findings are confirmed and extended by other workers, then cyclical changes in brain excitability should become a part of the thinking of doctors treating epilepsy. It is even possible that modification of these cycles, either by behavioural means or drugs, could lead to a reduction in seizure frequencies. But reading this book, one realises how far away these goals are. Or, if I may quote from one paper: "Unfortunately it has been difficult to conclusively evaluate these opposing conceptualisations with human subjects for many reasons."

Several different typefaces have been used, including some too small to be legible, giving the impression that the book has been

laid out by an enthusiastic secretary excitedly trying out every possibility on her new electronic typewriter. This makes it no easier to read. Neither does the fact that the rambling discussions are apparently unedited. A book only for the truly determined searcher after knowledge.

P FENWICK

Basic Principles of Nuclear Magnetic Resonance Imaging. By J Valk, C MacLean and PR Agra. (Pp 224; \$48.25 approx.) Amsterdam: Elsevier Science Publishers, 1985.

The authors have attempted to present in a small volume the basic principles of nuclear magnetic resonance imaging but at no time do they indicate what readership they are aiming for. The book consists of nine main chapters and six appendices, the latter covering mathematical concepts such as Larmor's theorem and the rotating frame principle. Apart from the introduction which places NMR in the clinical context with other imaging devices, chapters two to nine cover such topics as elementary considerations, pulse sequences, the localisation of NMR signals, equipment, contrast agents, clinical applications, *in vivo* spectroscopy and biological side effects. From a diagnostic radiologists' viewpoint, most of the book is clearly written and easily understandable, although I feel that it is not a book that can be easily tackled without some previous experience. Over 40 pages are spent on the elementary considerations and much of the mathematical explanation of the physics and quantum mechanics is not strictly necessary to a basic understanding and could well have been left as a further appendix.

The chapters on clinical applications and *in vivo* spectroscopy are, as the authors say, a limited statement of the current state of the art as of 1985 and will almost certainly be at least partly out of date by the time this review is published, but the basic clinical indications are at least mentioned.

In general, this is a useful publication which can easily be read in a couple of evenings, and in which the basic principles are adequately covered. However, it is not an easy introduction to the subject and ideally chapter 2 needs to be read in conjunction with one of several more easily understood publications provided by the leading manufacturers of NMR equipment.

D KINGSLEY