have enjoyed some success in compensating for impaired functions in mild to moderate dementia patients via spared functioning (e.g., the use of implicit or procedural learning to compensate for episodic memory loss). As Benke points out, cognitive intervention is of limited use in advanced dementia, but of course this is no argument for withholding cognitive treatment from patients in the earlier stages of dementia.

The main theme that can be extrapolated from this book regards the importance of multivariate differentiation of various ND types, both for improving our understanding of the structural and functional organization of memory function and dysfunction, and for detecting these diseases in their preclinical stage in hopes of impeding the course of dementia. Because the differentiation of ND spans all levels of analysis, scientists, medical doctors, and clinicians alike will find this volume most valuable, instructive, and thought-provoking.

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WOMEN AND EPILEPSY. 1998. By Tim Betts, Pam Crawford. Published by Martin Dunitz. 84 pages. $C23.50

This brief monograph which can be read in its entirety in approximately two to three hours, gives an overview of epilepsy issues and management in women with epilepsy. In eight chapters the authors discuss the effects of epilepsy on sexual development and the menstrual cycle, issues in contraception, the effect of epilepsy on pregnancy, labour, and the puerperium and epilepsy and the menopause.

The discussion of these topics is very broad and the opinions expressed are largely those of the authors. Adequate but not a large number of references are provided for readers that wish to explore these issues further.

The monograph is up-to-date and teratogenic effects and issues in relation to the use of the new antiepileptic drugs in pregnancy are briefly presented. Management guidelines in pregnancy are satisfactorily discussed.

The monograph will be of benefit to any physician treating women with epilepsy. It is very readable and can be used as an introduction to further reading in this important aspect of epilepsy management.

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AMYOTROPHIC LATERAL SCLEROSIS: A SYNTHESIS OF RESEARCH AND CLINICAL PRACTICE. 1998. By Andrew Eisen and Charles Krieger. Published by Cambridge University Press. 303 pages. $C97.44

As recently as 30 years ago a comprehensive reference book on amyotrophic lateral sclerosis (ALS) such as this was virtually unknown, and as a reflection of progress it is a welcome up-to-date addition to our knowledge. Three decades ago toxins and viruses (polio virus especially, because of the motor neuron involvement) were suspected causes. Moreover, Lou Gehrig and some other athletes died of ALS it was believed that strenuous physical activity, sometimes combined with toxins, were risk factors, a view that was impossible to prove or disprove. The growth of scientific knowledge has since been impressive, mainly because of the research that has been driven or funded by ALS and motor neuron disease societies throughout the world, including Canada.

The book is well assembled into eight interesting chapters. In the chapter on the clinical spectrum of ALS, the features of the disease, as well as conditions that mimic it, are comprehensive and up-to-date. Even experts may not realize the extent of degenerative changes in the nervous system in ALS. For example, an almost sacred belief about ALS is the apparent sparing of Onuf's nucleus in the sacral spinal cord that innervates the urethral sphincter, thereby explaining absence of bladder involvement. As the authors reveal, this is not so. Although the cells in Onuf's nucleus may appear intact, they contain inclusions, notably Bunina bodies, ubiquitin-immunoreactive material and axonal spheroids, as occur in degenerating alpha motor neurons, suggesting that these cells, given time will also disappear. Inclusion bodies have always been a strong point in the pathological diagnosis of ALS, and it was once hoped they would offer a clue to pathogenesis. Although this wish remains unfulfilled, the neurofilamentous accumulations, such as the axonal spheroid, are still viewed as important evidence of cause, and are under intensive study.

The description of the Cu/Zn-SOD gene mutations in the familial form of the disease is important because it represents the first major breakthrough in ALS research. Animal models were never truly helpful in efforts to understand ALS until the appearance of a transgenic mouse that had been altered by the insertion of the mutated Cu/Zn-SOD1 gene. The subsequent expression of some features of the familial disease in mice, such as the the accumulation of neurofilaments and motor neuron degeneration, has provided a substantial link to the human disease. Excitatory amino acid neurotransmitters, principally glutamate and aspartate, are a specialized subject requiring knowledge of their receptors and associated ion channels in order to appreciate their significance. Much attention in the literature has been focussed on the potential excessive release of glutamate in ALS resulting in neuronal cytotoxicity and degeneration. I expect it is one of Dr. Krieger's strengths that is here demonstrated, notably his work on glutamatergic mechanisms and receptor-mediated neurotoxicity, and as a result the topic is covered with great clarity and will be welcomed by students and residents. Discussed as well by the authors are growth factors, an absorbing preoccupation of pharmaceutical companies, that have so far yielded little, neither has treatment of ALS patients with immunosuppression.

Dr. Eisen is a clinical neurophysiologist and on this topic he writes with professional ease, reflecting his widely recognized expertise and many publications. I was especially interested in neuro-imaging in which it is noted that magnetic resonance spectroscopy, unlike SPECT imaging, is a valuable asset to studying ALS. Positron emission tomography (PET) still holds promise for insight into the disease although this is likely of limited potential. Finally, topics such as dementia, Parkinsonism and other expressions of ALS are covered in the latter part of the book reminding us again that, until very recently, ALS was just a motor neuron disease whereas it is now known as much more extensive nervous system disorder.

This is an excellent book, well written, informative, up-to-date and important. It brings together the state-of-the-art on ALS and I am glad to have it on my shelf.

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