Bertapaglia is a small town close to Padua and since Leonard enrolled as a medical student in Padua in 1400 or 1402 his birth-date was just around six hundred years ago. Leonard of Bertapaglia is not a name which readily trips off the lips of those of us who have a passing, rather than a great interest in the early surgery of the nervous system, but it is remarkable to observe that this work was published, firstly in manuscript and then put into print and actively used seventy years later.

The book is laid out with an interesting introduction and concluding commentary. There is a glossary/pharmacopoeia at the end which is of interest. The greater part of the book consists of chapters with the mediaeval Latin on the left and the translation on the right. The book might be of interest to someone with a close involvement in mediaeval history and indeed the work of the compiler shows attention to detail and obvious affection for the task in hand. For those of us who are not concerned so much with linguistic details or quaint recipes, but more with the ideas and the concepts that a surgeon practising six hundred years ago might hold, the text is perhaps excessively detailed. I much prefer Spillane's *Doctrine of the Nerves* as a bedtime read.

The original author appears to have been a fairly typical neurosurgeon with a combative style which led to his occasionally needling his academic colleagues and thus not being granted his doctorate until he was seventy. He was a technically minded man and has been credited with the reintroduction of the circular trephine and also the first description of the suture/ligature.

Some of his advice reads well today and could well be taken by those who still purport to treat subdural empyema by the making of burr holes. Leonard says "should such pus occur, however, the physician should direct his attention not to a single location but to diverse areas".

Leonard also described a neat test: "there are some who have horns and they bid the patient blow, as a trumpeter blows his horn, so that the spirit or wind rises up to the patient's head. If the air from this blowing respires to the exterior of the wound, this is a manifest sign of a fractured skull". He did not have access to a sphygmomanometer and neither does he report headache occurring after horn blowing; indicating that he just missed describing the reviewer's pnictalogram test for hindbrain hernia headache.

Some other of his words have a modern ring about them and his advice appears somewhat more advanced than I can sometimes bring myself to take. For exam-

ple, when advising a patient of a lethal illness he says that the physician "must, lest the stupid criticise and calumniate him, inform the patient of the peril of death. He must say to the patient, 'Oh, my friend, compose your testaments and confess your sins to God, which will be very helpful to me and beneficial for the cure, healing your wounds the more quickly, for your mind will be at peace and your humours cleansed of strange fancies'".

Further cogent advice for the neurosurgeon is his observation that wine causes debilitation to the brain and passage of the humours to the head, which unfortunate consequence of itself, as well as the tendency of such cerebral humours to be used for needling our academic colleagues, may prevent many of us from obtaining doctorates before or even after age of seventy.

A common thought on reading accounts such as this is to wonder which of today's practices will appear, to someone reading about them in five hundred years time, quite as completely ridiculous as some of these remedies. For example the concoction of a paste or plaster: "For wondrously inverting bone fragments. Rx: Armoniac, Bdellium, Serapinum, Galbanum, Oponopanax, Resin of Myrrh of each half an ounce; Turpentine, Naval pitch, Resin of pine, Oak sap, left overs of a dish of anchovies of each three ounces; Aristolochia round and long, Dittany, Colphony, Myrrh, an ox stone, bark of Aruninacea root of each three drams; Leven, pigs fat, laurel oil of each two ounces and vinegar one ounce". It may be suspected that in another half millennium such a remedy may read rather better than advice to take the mid-brain of a mid term abortus, pronounced by the immunologists to be free of HIV and hepatitis, homogenise and inject into whichever part of the brain happens to be the target of the month, on the opposite side of the shaking palsy.

The mediaeval neurosurgeon must have suffered, albeit unknowingly from shortage of antibiotics and modern imaging but what a pleasure to get the left overs of a dish of anchovies past the Padua ethical committee or their FDA. Leonard was not much into medical audit and neither the Karnovsky nor the Glasgow outcome scale were featured. He tended to finish his sometimes outlandish recommendations with some such phrase as; "This will produce wondrous and incredible improvement". At least this sounds perfectly modern and would go as well in the Journal of Neurosurgery as in "Capitulum de Fractura Cranei".

In short this is a book more for the medical library or the serious student of history but is

nevertheless an interesting and thought provoking publication.

BERNARD WILLIAMS

Neurology of Pregnancy. 2nd Edition. By JAMES O DONALDSON. (Pp 347; £35.00.) Hagerston court Brace Jovanovich Ltd, 1989.

The first edition of this book was published in 1978 and the present volume is referenced up to 1987. It is a useful guide to the many and sometimes alarming neurological problems of pregnancy. The author seems a little uncertain of his readership as it is unlikely that anyone needing to consult this book would require, for example, a potted single page account of the clinical features of multiple sclerosis, but it is always difficult to decide what to leave out. Chapters are devoted to anatomy, peripheral neuropathy, muscle disease, movement disorders, infections, cerebrovascular disease, tumours, headache and epilepsy. Sensible measures are recommended for the control of convulsions in eclampsia but the author has felt obliged to present, with strong disapproval, a full account of the use of magnesium sulphate, apparently still favoured by some obstetricians in the USA. High blood levels of magnesium induce neuro-muscular blockade and cessation of convulsive movements, the result of paralysis, a method of treating status epilepticus now effectively outlawed as lethal.

Sound and well documented advice is given on the management of such taxing problems of pregnancy as subarachnoid haemorrhage, ischaemic stroke, cerebral tumour and suspected spinal cord compression. Professor Donaldson has evidently devoted much thought to the use of anticonvulsants in pregnancy and although his conclusions might not receive universal agreement the dilemma of foetal and maternal risks from medication or uncontrolled epilepsy is fully discussed.

This book would be a valuable addition to any neurologist's library.

W B MATTHEWS

A Colour Atlas of Multiple Sclerosis and Other Myelin Disorders. By Colin Adams. (Pp 231; £55.00.) London: Wolfe Medical, 1989.

There are many books on multiple sclerosis covering the clinical and pathological aspects of the disease and related disorders.

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However, none is quite like this one. Who would have thought of publishing an atlas on multiple sclerosis? What use could it be and to whom?

This book is a product of Colin Adams' thirty years' research in the field of myelin and multiple sclerosis; the illustrations have been collected over this period. The atlas forms a unique record of techniques which are still highly relevant for today's research. Most of the illustrations are in colour and they are, on the whole, well reproduced by the printer. There is a tremendous range of histological, histochemical and immunocytochemical techniques and there are scattered electron micrographs and some CT and MRI scans.

The word "atlas" in the title is slightly misleading. It is rather more than an atlas as there is substantial text in the form of succinct up-to-date summaries in each section which are well referenced and refer to the illustrations. Although blocks of text precede the illustrations and are separate from them, there is enough information in the captions of each illustration to allow the reader to browse through the pictures and to gain much valuable information. I recognise many of the photographs that I have seen the author project on a number of occasions and they really are good illustrations of a wide range of histochemical techniques. They show the standards that can be reached with some of the more difficult histochemical methods.

The book is divided into 10 chapters. In the first four the text and illustrations cover the general principles of myelin structure and demyelinating diseases both in man and in animals. There is also a chapter on experimental and laboratory studies of myelin diseases. The last six chapters deal with the epidemiology, pathology, histology and cytology, vascular aspects, immunology and complications of multiple sclerosis in a logical manner.

Although the account of multiple sclerosis in this book is very much an individual view, it does cover a wide variety of ideas and techniques and, as such, forms an excellent record of methods by which multiple sclerosis can be investigated pathologically. The text greatly adds to the atlas so that the book will be of interest to neurologists, pathologists and neuroscientists interested in the pathological and research aspects of multiple sclerosis.

RO WELLER

Linguistic Investigations of Aphasia, 2nd Edition. By RUTH LESSER (Pp 207; £17.50.) London, Cole & Whurr, 1989.

This is the second edition of an influential and useful introductory book on linguistic approaches to aphasia. The book is concerned with the contributions of linguistics to our knowledge of aphasic disorders and the central chapters are reproduced with little change from the earlier edition. The author starts with an introduction to the medical and clinical background to aphasia and by giving an account of the areas of linguistic theory relevant to aphasic disorders. Retained in its previous form is a review of the application in aphasiology of De Saussure's contrast between selection and combination and Chomsky's distinction between competence and performance. The cognitive impairments observed in aphasic patients other than aphasic difficulties are then briefly reviewed. Disorders of primary functions and disorders secondary to language dysfunction are covered, as are impairments associated with lesions outside the language areas. However, the amount of space allocated to these areas is inadequate to provide a sufficiently detailed review.

In the next two chapters the role of semantic relationships is explored and the significance of these to the difficulties experienced by aphasic patients. Unfortunately much of the work published more recently on category specific deficits is either not included in the text^{1,2}, or is added in a summary at the end of the chapter. Similarly, the two subsequent chapters on investigations of syntax and phonology have not been brought up to date. In addition, many of the references published several years ago are quoted in the text as still "in press".

More recent studies in neuropsychology and psycholinguistics are collected in a final chapter entitled "Psycholinguistic and sociolinguistic applications of linguistics to aphasia". Areas covered here include further developments of what I presume to be Morton's logogen model of lexical processing, PET (Positron Emission Tomography), studies of regional blood flow during lexical processing and recent work on sentence processing. The final section is concerned with clinical measures and applications and should be of use to the practising clinician.

The contribution of the second edition of this book is to include new techniques and findings as well as recent theoretical developments relevant to aphasia. Overall, the book provides a comprehensive review of linguistic approaches to aphasia. I would particularly recommend the two chapters on syntax and phonology. Here the author gives a stimulating and readable account of the grammatical and phonological difficulties in aphasia, the latter being considered both in

terms of neuromuscular incoordination and as a central linguistic dysfunction. The book as a whole provides a good starting point for students and professionals interested in language pathology. Some prior knowledge of linguistics or aphasia would probably be an advantage in that the information is fairly condensed, but this serves to enhance its value as a reference book. Neuropsychologists and neurologists should find the bibliography useful. It would have been even more valuable had the information and references in the text been brought more up to date.

E KRISTIN BREEN

References

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The Wernicke-Korsakoff Syndrome and Related Neurologic Disorders Due to Alcoholism and Malnutrition. 2nd Edition. By VICTOR, R D ADAMS, A COLLINS. (Pp 231; About \$55.00.) Quest-Meridien Ltd, 1989.

In 1971 after a meticulous study of the clinical records and neuropathological findings in alcoholics, Maurice Victor and Raymond Adams produced a monograph on Wernicke's disease and Korsakoff psychosis. They described their experience of 20 years first at the Boston City Hospital and later at the Massachusetts General and Cleveland Metropolitan General Hospitals. Now some 18 years later they review their original experience and include further more recent cases where alcohol has not been implicated as a pathogenetic factor in the development of the neuropathological changes.

The reviewer's impression is that this remains, and will remain, the definitive work on the effects of alcohol and malnutrition on the human nervous system.

The original descriptions by Wernicke and Korsakoff are reviewed and a very detailed account of the clinical phenomena is presented based on the original study of 245 patients and autopsy examinations of 82 of these. Since the first edition of the book the authors have reviewed a similar number of cases. The account of the clinical symptomatology is meticulous and detailed. The majority of the patients studied were alcoholics with alcohol related neurological