Apomorphine as an alternative to sildenafil in Parkinson's disease

I was interested in the recent paper by Hussain et al describing the efficacy of sildenafil citrate for erectile dysfunction in patients with Parkinson's disease or multiple system atrophy (MSA). Their findings provide reassurance that this popular drug is both effective and safe in parkinsonian patients provided orthostatic hypotension is recognised as a potential side effect in MSA. Sildenafil inhibits cyclic GMP specific phosphodiesterase thereby enhancing nitric oxide mediated relaxation of the corpus cavernosum. The authors do not mention any effects of sildenafil on parkinsonian symptoms, although its mechanism of action would make this unlikely.

In addition to erectile dysfunction, many factors including motor symptoms contribute to sexual dysfunction and dissatisfaction in this population. I have previously reported that apomorphine given sublingually can enhance nitric oxide mediated relaxation of the corpus cavernosum. The authors do not mention any effects of sildenafil on parkinsonian symptoms, although its mechanism of action would make this unlikely.

Some of these patients started using intermittent apomorphine injections specifically for erectile dysfunction. In contrast to sildenafil, apomorphine agonists act centrally on dopamine receptors in the paraventricular nucleus of the hypothalamus to stimulate oxytocin release. The benefit to motor symptoms in Parkinson's disease is mediated through dopamine receptors in the striatum. Apomorphine also benefits motor disabilities in some patients with MSA although orthostatic hypotension may be exacerbated by stimulation of peripheral dopamine receptors and its role in erectile dysfunction in this group has not been explored.

In view of the additional benefits to parkinsonian motor symptoms, subcutaneous apomorphine should be regarded as an alternative to sildenafil in treating patients with Parkinson's disease and erectile dysfunction. Sublingual preparations of apomorphine have recently been developed for this indication.

J D O'Sullivan
Department of Neurology, Level 7, Ned Hanlon Building, Royal Brisbane Hospital, Herston Road, Herston, Qld 4021, Australia.

References

Conflict of intentions or inner negativity?

In a recent, fascinating article, Nishikawa et al describe their encounter with “three patients with callosal lesions who sometimes could not perform whole body actions as they intended because another intention emerged in competition with the original one.” Believing that “no specific term has yet been coined for this symptom,” they “tentatively” named it “conflict of intentions.”

In fact, however, this symptom was described by Bleuler in his _Textbook of psychiatry_, which first appeared in English translation in 1924. Bleuler termed it “inner negativity,” and noted that when “patients make an effort to start an action . . . a counter-impulse, or only a mere blocking appears and hinders them in its execution.” Such inner negativity could prevent “the simplest acts like eating. The spoon is arrested half way up to the mouth and must finally be put down again.” The great service of Nishikawa et al is to demonstrate the localising value of this symptom to the corpus callosum; it would be a disservice to medical history, however, to rename it.

D P Moore
Department of Psychiatry and Behavioural Sciences, University of Louisville School of Medicine, C/O Central Hospital, La Grange Road, Louisville, KY 40223, USA; dpmooremd@cs.com

References

Author’s reply

We are very grateful for Dr Moore’s interest and comments on our article. We believe that the value of our study lies, firstly, in having rediscovered the significance of a symptom in some cases of partial callosal disconnection. The literature has been largely silent about this symptom, except for a few episodic descriptions in case reports. Secondly, we link it to the so-called callosal disconnection syndromes by clarifying its clinical features and discussing possible pathogenic mechanisms. We gave the symptom a new label—“conflict of intentions”—because it differs from any other callosal symptoms and cannot be explained by established disconnection theories, given that this symptom manifests itself without being confined to one half of the body.

Dr Moore comments that the symptom we reported has already been described in Eugene Bleuler’s classic textbook and termed “inner negativity” (“inner Negativism”) in the original. He asserts that assigning new terminology to an essentially identical symptom would be a disservice to medical history. We disagree.

We consider that the terminology used in descriptive symptomatological studies is conceptually different from that used in studies that take into account both phenomenology and pathogenesis. In Bleuler’s textbook, “inner negativity” appeared in the chapters about general descriptive symptomatology and schizophrenia. Our “conflict of intentions,” on the other hand, is a purely neuropsychological term meant to denote a particular type of callosal disconnection syndrome. We hypothesise links between pathophysiological phenomena and underlying pathogenic neural mechanisms. In other words, we do not intend to equate the neuropsychological term “conflict of intentions” with the purely descriptive term “inner negativity.”

We agree that the symptom described by Bleuler has much in common with that seen in our patients. Indeed, we hope that our speculations about the conflict of intentions will help to elucidate the neural mechanisms of some well known psychiatric symptoms such as ego disturbances in schizophrenia, and ego dystonic experiences in obsessive compulsive disorders. In the future, these symptoms may be explained in terms of the dynamics among intentional, responsive, and automatic factors acting on their respective main neural substrates—that is, the left and right cerebral hemispheres and lower neural systems—which we assume to be elements for explaining general human behaviour. Until such a unifying theory is established, we think it may not be such a disservice to medical history to preserve a distinction between the developmental processes of descriptive psychiatry and neuropsychology by retaining both terms, Bleuler’s “inner negativity” and our “conflict of intentions.”

T Nishikawa, I Mizuta, M Takeda
Department of Clinical Neuroscience and Psychiatry, Osaka University Graduate School of Medicine, Osaka, Japan

J Okuda
Department of Psychiatry, Shonan National Hospital, Naru, Japan

Correspondence to: Dr Nishikawa, Department of Clinical Neuroscience and Psychiatry, Osaka University Graduate School of Medicine, D3, 2-2 Yamadaoka, Suita City, Osaka 565-0871, Japan; nishikawa@psy.med.osaka-u.ac.jp

BOOK REVIEWS

Practical psychiatry of old age, 3rd edn


It is a curious thing that old age psychiatry is such a geographically weak discipline. There are many and excellent old age psychiatrists in Australia and Norway. The UK is arguably the home of old age psychiatry and the discipline is well established in the United States. However, in most European countries, let alone further afield, old age psychiatry as a discipline either doesn’t exist or is limited in scope.

This is a shame, as amply shown by this book. The argument in favour of old age psychiatry is well presented by Watts and Curran. It is discipline that is at home with physical disease as much as any other discipline. A discipline that is perhaps the most comfortable with multidisciplinary working; a discipline that can move in the course of a day’s clinical work from molecular genetics to psychotherapy with...
demanded people. Practical psychiatry of old age, now in its 3rd edition, brings together the main fields of our discipline. It is liberally scattered with useful and interesting case histories and the advice on management is sensible and up to date.

The book is clearly written for a trainee and non-specialist audience and deals with most subjects with a fairly light touch. The references at the end of the chapters serve as useful reading lists, including as they do both recent and historical papers. For students and for trainees this book will provide a useful revision and summary aid although trainees will need also to have hand some of the work in other disciplines. Those in other disciplines may well find the book helpful to understand some of the classification and nomenclature issues of old age psychiatry.

Like the discipline itself, however, this book is very much a British affair. The sections on services have only limited international relevance and even the concept of a doctor who manages late onset psychosis, personality disorder, and dementia is not so common elsewhere. The concentration on the international classification of diseases has limited application in the United States. So for those in the UK who need an introductory text to this best of medical disciplines, this book is a sensible choice. To those who have yet to appreciate the joys of being an old age psychiatrist, dip into a colleague’s copy—you may be pleasantly surprised.

Simon Lovestone

Brain Imaging in Schizophrenia, Insights and Applications


This overview of brain imaging studies in schizophrenia is well illustrated with scan photographs. The first two chapters cover the techniques of brain imaging and include several tables summarising information. The structural imaging chapter describes the techniques of computed tomography and MRI, and introduces the novel methods of diffusion weighted imaging and magnetisation transfer imaging. Complex topics such as the underlying principles of MRI are tackled in a fairly accessible manner. The functional brain imaging chapter covers PET, SPECT, fMRI, and MRS. The next two chapters cover the results of structural and functional imaging studies. These chapters are thoughtfully subdivided, and papers up to and including the year 2000 are cited. The brevity of the volume of course restricts the range of studies discussed, but generally the selection is good. Space also prevents areas of conflict from being discussed, but generally the selection is good. The smaller, with this fascinating and fast evolving area.

**R Alexander Bantick**

*Parkinson’s Disease in the Older Patient*


This is a welcome addition to the literature. The book has been published with the help and support of the British Geriatrics Society special interest group on Parkinson’s Disease and the Parkinson’s Disease Society of the United Kingdom. Both organisations have been at the forefront of increasing public and professional awareness of the need for a holistic approach to the care of older people with this condition. Understanding of the pathophysiology, therapeutics, and progression of the disease, as well care. His paradigm for Parkinson’s disease nurses and specialist clinics have all led to significant improvements in patients’ quality of life. This well referenced publication will add to the knowledge of therapists and geriatricians in practice as well as in training.

There are 21 chapters, in five parts, which address topics ranging from the historical background to Parkinson’s disease due to its disease and diagnosis, and assessment, written by Drs Macphee, Meara, and Forsyth. In the absence of a foolproof test for Parkinson’s disease, these chapters go a long way to reminding readers of the importance of history, examination, assessment, and therapeutic challenge. The remaining parts include specific problems in Parkinson’s disease, therapy and management, and research perspectives. The chapter by Dr MacMahon on the organisation of services, concepts of management, and health economics builds on his theory of effective management of chronic disease, emphasising the importance of staging Parkinson’s disease in terms of diagnosis, maintenance, and complex and palliative care. His paradigm for Parkinson’s disease management is used by many geriatricians and is described it in greater detail for the benefit of a wider audience of clinician.

There are also chapters on rehabilitation and the interdisciplinary team, the Parkinson’s disease nurse specialist, complementary and alternative medicine, and of course drug therapy by Dr Playfer, one of the editors. The other editor, Dr Hindle, has written a beautifully argued chapter on the complexity of neuropsychiatry in this syndrome, and autonomic problems are eloquently described by Professor Kenny and Dr Allcock. Unfortunately it is impossible to acknowledge all the authors, but no aspect of Parkinson’s disease is left unchallenged. The development of a properly managed, cost-effective, and evidence based service is the conundrum. Parkinson’s disease, emphasising the importance of staging Parkinson’s disease in terms of diagnosis, maintenance, and complex and palliative care. His paradigm for Parkinson’s disease management is used by many geriatricians and is described it in greater detail for the benefit of a wider audience of clinicians.

There are also chapters on rehabilitation and the interdisciplinary team, the Parkinson’s disease nurse specialist, complementary and alternative medicine, and of course drug therapy by Dr Playfer, one of the editors. The other editor, Dr Hindle, has written a beautifully argued chapter on the complexity of neuropsychiatry in this syndrome, and autonomic problems are eloquently described by Professor Kenny and Dr Allcock. Unfortunately it is impossible to acknowledge all the authors, but no aspect of Parkinson’s disease is left unchallenged. The development of a properly managed, cost-effective, and evidence based service is the conundrum. Parkinson’s disease, emphasising the importance of staging Parkinson’s disease in terms of diagnosis, maintenance, and complex and palliative care. His paradigm for Parkinson’s disease management is used by many geriatricians and is described it in greater detail for the benefit of a wider audience of clinicians.

Jackie Morris

**Brain’s diseases of the nervous system, 11th edn**


Lord Brain left us two neurological textbooks. The smaller, Brain’s clinical neurology, subse-

quent revised by Sir Roger Bannister, is known affectionately as “Little Brain. Disease of the nervous system,” or “Big Brain”, remained a single author work until the 9th edition. By then, it had passed into the hands of Lord Walton, who brought in 12 coauthors for the 11th edition. This 11th edition, recently revised under the new leadership of Michael Donaghy, has contributions from 14 authors, all working in British institutions.

The decision to continue with relatively few contributors, all from the same country, might have lacked the book open to charges of being parochial or elitist. However, the result is a volume with a cohesive style where unnecessary overlap has largely been avoided and omissions are few.

Even nowadays, there is only a handful of standard neurology reference texts, so comparisons are inevitable, in particular with Neurology in clinical practice by Bradley et al. Brain’s diseases has the signal advantage over Neurology in clinical practice of being contained within a single volume, albeit one large enough to allow a generation more efficiently than any family bible.

The arrangement of chapters in this edition of Brain’s diseases is as logical as in any other major text—Lord Brain himself acknowledged the organisation in the first edition. The brevity of this book. Theamber introductory section, the book is effectively a series of monographs on diseases of the cranial and peripheral nerves and muscles, then structural disease of the neuraxis, followed by epilepsy, coma, and dementia. Finally, the major pathological processes are described: vascular, demyelinating, inflammatory, degenerative, and infective.

Generally, these are covered with great authority, wisdom, and scholarship. So criticism of this icon of British neurology may seem unchivalrous but here are some minor comments. Firstly, the lack of a chapter to dryness the author are occasionally unduly colloquial (“Nonsense!” p 83) or hectoring (“Whatever else, it is important for neurologists to . . .” p 899).

As for content, there are a few lapses. In particular, discussion of the pathophysiology of symptoms and signs lacks depth: Huggings Jackson would have baulked at the definition of positive symptoms given on p 13. On this book of this size, there is some variation in quality and the chapter on vasculitis and collagen vascular disorders is weaker than the rest. Though these conditions are relatively rare, their management is important, as it frequently vexes neurologists. It is simply inadequate to dismiss their classification as unsatisfactory and end the brief discussion of this topic with the implication that they can all be lumped together anyway, as the treatment is usually immunosuppression. In the same section, lupus and the anti phospholipid syndrome are given as examples of the difficulty of accurate subclassification. But this is one situation where the differences in treatment—that is, immunosuppression versus antiplatelet therapy and/or anticoagulation. Later in the same chapter, eosinophilia is given as a feature of Wegener’s granulomatosis yet is my understanding that the condition is immunosuppressed from the adjacent paragraph on Churg-Strauss syndrome.

Consistent nomenclature is always a concern in large multiauthored texts. Here, there are predictable difficulties with the hereditary neuropathies and with what to call idiopathic brachial plexopathy—the author lumping for the rather antiquated “acute brachial neuritis”. It is a pity that the one disease for which the British can claim special expertise—the human
form of bovine spongiform encephalopathy—
given two names, "variant Creutzfeldt-
Jakob disease" in the section on dementia and
"new variant Creutzfeldt-Jakob disease" in
that on infection.

There are typographical errors, which are too many for comfort, especially in the tables, figures, and references, giving the impression that the book was rushed in its final production stages. Perhaps the most alarming was the symptom of a new cranial nerve, the 13th, in table 1.4. Figure 8.5 shows a retinal hamartoma, not haematoma. Figure 8.4 shows the optic fundus at an unusual angle. Figure 11.9 is anatomically incorrect. Figures 29.10 and 29.11 are too small. The caption to figure 2.23 is incomprehensible. Many other examples could be given.

But these are mainly minor quibbles, easily rectified when the book is reprinted. Taken as a whole, Big Brain is alive and well, and safe in the hands of its new editor and his coauthors.

Lionel Ginsberg

Textbook of Clinical Neuropsychiatry
Edited by D P Moore (Pp 747, £69.50).

There is a certain logic to the system Moore uses in his textbook of clinical neuropsychiatry. The first half of the book essentially contains a list of causes, symptoms, signs, syndromes. For example lists are provided for causes of dementia lacking distinctive features, dementia with associated strokes, and dementia with parkinsonism or with Parkinson's disease. Confronted with a patient with dementia plus parkinsonism the reader has quick access to conditions that need to be considered. Or if the reader is looking for a list of causes of catatonia he need look no further than table 3.8. Having identified the potential causes of the patient's symptoms the reader then goes to the second half of the book where he will find up to date descriptions of the relevant neuropsychiatric diagnoses. The problem with such an approach is that it leads to duplication. In the first half any single diagnosis has to appear as many times as there are symptoms, signs, or syndromes; conditions with symptoms, signs, or syndromes that are covered it is not surprising that Moore has achieved his aim of offering a ready reference for established practitioners. It will be of interest to both neurologists and psychiatrists.

Simon Fleminger

Wolf's Headache and Other Head Pain, 7th edn.

There can be few people still alive who came under the direct influence of Harold G Wolff before his death in 1979 (Donna Daelessio being one), but his influence on the whole of neurology has been immense and still continues. His book soon became a classic—the two editions he wrote were long out of print but now acquired only with difficulty from antiquarian book-sellers. Over the years it has become slowly transformed, though perhaps some intermediate editions were written in a factory hybrid between the master and later developments. "Wolf's Headache" has now emerged as a fully fledged multi-author text in its own right, with less emphasis on the master's own experimental work. We now have a 600 page authoritative book, written largely by American authors, all clearly experienced clinicians. It is comprehensive, not more manageable than its main competitors.

In the first 100 pages the classification, anatomy, pathophysiology, genetics, and epidemiology of headache are reviewed, with discussion of imaging techniques and comorbidity with other diseases. The core of the book covers migraine, cluster headaches, and tension headaches, including a very comprehensive review of every drug that has ever been used to treat headache, including the obscure, the ineffective, and the promising. This section is also strong on the classification of chronic headache syndromes and in discussing analgesic abuse. The third section discusses every conceivable structural cause of headache, including low CSF pressure, metabolic disease, and disorders of the neck, eyes, teeth, nose, and blood vessels, including all the classic citations. The final three chapters discuss headache in children, behavioural management, and the consultation process itself.

This is an outstanding book; little of significance is omitted, and yet one is not overwhelmed with details. No doubt with the trainee entering the field in mind, it is particularly good when reviewing the literature, though some authors do occasionally lapse into quoting citations of older papers. It will prove to be a useful reference text for more senior neurologists confronted with a difficult patient, both for diagnostic and therapeutic options, though these are perhaps more from an American viewpoint.

Richard Peatfield

Multiple sclerosis: Tissue destruction and repair

The Martin Dunitz imprint produces high quality books with catchy titles often built around European congresses of neurology. Brain disease: therapeutic strategies and repair emerged from the European Neurology Society meeting in Jerusalem (2000). Multiple sclerosis: tissue destruction and repair is the proceedings of the joint meeting of the European and American Committee for Treatment and Research in Multiple Sclerosis held in Basel in 1999. Looked at critically, neither book is much about repair. Here, the 116 contributors to 3 books edited by a team from Switzerland and Baltimore wrote on central nervous system-immune interactions; in vivo assessment of tissue destruction and its consequences; multiple sclerosis fatigue; new immunological concepts and their therapeutic consequences; treatment of relapse; modern concepts of therapeutic immunomodulation; and an update on therapeutic trials. Many of the usual suspects are rounded up: magnetic resonance surrogates for various histological components of the disease process in multiple sclerosis; markers of demyelination in body fluids; treatment effects of interferon beta and its mechanisms of action; and strategies for transplantation in multiple sclerosis. Some authors take up old authors: the use of steroids in acute episodes; and disease modifying effects of non-specific immunom suppressants. But there are also some new or emerging stories: inflammation and neuronal activity; interactions between immune mediators and growth promoting molecules; IFN evidence for plasticity in multiple sclerosis; T helper and T regulatory activity; bone marrow transplantation in multiple sclerosis; prophylactic treatment of puerperal disease activity with intravenous immunoglobulin; and a brace of preliminary clinical trials with hitherto unknown agents offering new hope to watch. Multiple sclerosis: tissue destruction and repair succeeds as a statement from experts on where selected aspects of research stood in 1999 and as testimony to the deserved and sustained success of ECTRIMS (and ACTRIMS) but as a lasting statement on lesion and repairing the damage in multiple sclerosis, perhaps less so.

Katrina Dedman

Current management in child neurology, 2nd edn

Management includes assessment, diagnosis, and treatment. What emerges therefore is a book of clinical paediatric neurology—not a book on treatment in paediatric neurology. It is divided into outpatient and inpatient conditions and priority within these areas is apportioned by incidence. The top four out-patient neurological conditions presenting to paediatricians in Florida are attention deficit hyperactivity disorder (ADHD), seizures and epilepsy, developmental delay, and headache. The top four discharge diagnoses from hospital on the other hand are enteroviral meningitis, epilepsy, hyperkinetic syndrome (which the author explains by the presence of comorbid conditions requiring hospital treatment), and concussion.

The aim of this book is to provide “primary care physicians, neurologists and house staff with factual information on how to treat children with the most common disorders of the nervous system”.

There are some surprising omissions including spinal dysraphism. Movement disorders generally get short shrift. Of the 550
pages, cerebral palsy gets five (biomechanics gets five lines, prevention of secondary deformation is ignored), although there are a further eight on spasticity. There is nothing on chorea or dystonic syndromes—the latter omission is particularly surprising in view of the treatment implications.

In these days of economic scrutiny the evidence base for treatment recommendations should be referenced but is not for cerebral palsy, language disorders, or learning disability.

One hundred and nine authors contributed to this book. That so many have been induced to contribute may be because few provide more than seven pages. Thus, the most extensively treated topic is that of epilepsy with 86 pages from 13 separate authors. This leads to redundancy (treatment with antiepileptic drugs in most chapters but especially those on first choice antiepileptic drugs and recurrent seizures) and surprising omissions. A diagnostic approach to Lennox-Gastaut syndrome and progressive myoclonic epilepsies would have been useful. Nowhere are the implications of the genetics of familial epilepsies described. Genetic counselling generally is mentioned only in the chapters on neurofibromatosis and tuberous sclerosis. The concept of channelopathies is absent throughout.

The target audience for this book see a lot of services they are advised to avail themselves fully of these facilities. Richard O Robinson

Richard O Robinson