Head Injury, Pathophysiology and Management – Second Edition

Reilly and Bullock, doyens in the field of neurotraumatology, have compiled a substantially revised second edition of this textbook. The book is divided into three sections, with contributions from many authors, mainly from the United States of America, the UK and Australia. The chapters are of a consistently high quality.

Section 1 comprises six chapters, detailing our current understanding of the pathophysiology of head injury. The colour neuropathology plates, illustrating macroscopic and microscopic changes are outstanding, making this chapter readily accessible. Overall, this section of the book provides a well-referenced background in neurotraumatology.

In Section 2, the clinical grading systems are evaluated with clarity. The chapter describing the imaging of head injury contains over one hundred scans, which illustrate the numerous radiological consequences of traumatic brain injury. The description of bedside monitoring techniques from the Cambridge team is clear and comprehensive.

The remaining eleven chapters in the book describe the treatment of patients with traumatic brain injury. These chapters are scribed with attention to the link between basic science and clinical application. Where available, published evidence is critically appraised. The pharmacological section on frequently used drugs, such as mannitol, frusemide, barbiturates and hypertonic saline is particularly useful. Less widely used protocols such as the Lund system are discussed. The descriptions of surgical techniques are clear. In particular the chapter on ballistics is elegantly illustrated. Andrew Maas has compiled a well-referenced chapter, which reviews neuro-protective strategies in considerable detail. Brian Jennett’s authoritative account of the outcome after severe head injury is a gem. Delayed complications, including epilepsy and psychologival sequelae are covered.

In summary, I recommend this book to all neurosurgeons and neuro-intensivist trainees. In addition, others working in the field including rehabilitation will find a wealth of useful background and clinical information to guide practice. The editors are to be commended on producing a fine volume.

Peter C Whitfield, Consultant Neurosurgeon and Honorary University Fellow, South West Neurosurgery Centre, Plymouth, UK.

Asperger’s Syndrome and High Achievement: Some Very Remarkable People

Different like me. My book of autism heroes

These two books tackle similar subject matter, but with different prospective audiences. Ioan James is a mathematician who has previously published books on remarkable mathematicians and physicists. Now he tackles the topical subject of Asperger’s syndrome (AS), assembling twenty ‘possibles’ (M:F = 18:2) dating from the 16th to the 20th century, a task in which he has been encouraged by such experts as Uta Frith and Simon Baron-Cohen. The book is a series of brief vignettes, emphasizing the Asperger-like features of each individual, rounded off with a concluding chapter synthesizing the various key features of AS: social impairments, all-absorbing narrow interests, repetitive routines, speech and language peculiarities, problems of non-verbal communication, and motor clumsiness (which of us could not lay claim to some of these?). The book subscribes to what might be called the William Hague approach, following his biography of William Pitt, namely drawing on others’ accounts of each subject to produce a narrative, without indulging in the tedium of consulting primary sources or doing original research.

It is a highly readable text, not least of course because the chosen characters are of great interest, including composers and musicians (Satie, Bartok, Gould), authors (Swift, Highsmith), artists (Michelangelo, van Gogh, Warhol) and scientists (Newton, Einstein, Bertrand Russell, Turing). Since AS is a disorder with, to my knowledge, no biomarkers, I would have liked more on differential diagnosis: the possibility of personality disorder is mentioned for Ramanujan (p125) and Wittgenstein (p133), and this has also been suggested for van Gogh though not mentioned here, but the possibility of obsessive compulsive disorder is not raised. This may simply reflect the author’s lack of clinical training. A few typographical errors intrude: ‘Alfred’ Einstein (p12) alarmed me a little, and only a mathematician could miscalculate van Gogh’s age at death as 47 (p 86) rather than 37!

Jennifer Elder’s book is aimed at children between 8-12 years of age. Like James, she has 20 who ‘don’t fit in’ (M:F = 15:5), and there is some overlap (Einstein, Warhol, Turing, Newton, Gould). These are one-page, thumbnail, sketches with no medical jargon. I don’t know if this catalogue will build self-esteem in children who are different, but I wish it every success.

More serious, for me, is the unquestioned notion, in both these works, of the autistic spectrum itself. Is it possible that this nomenclature serves to medicalize, or pathologize, a variant of human personality which is normally distributed in the population? Could one not posit a personality type – let us call it ‘hetero-ism’ – characterised by the converse features? ‘Sufferers’ have highly developed social skills, ‘team workers’ who are good at motivating other people to work for them, able in claiming credit when things go well and apportioning blame to others when not; they have broad but passing interests, with a tendency to flit from one to another, but nonetheless are vocative and willing to express opinions, often forcefully, however little knowledge they actually have, opinions which they can alter dramatically dependent upon the needs of the situation; they have excessive interest in other people’s business, to the point of presumption in knowing others’ mind states (‘hypermentalising’?), reflective of a general lack of mental resources for solitude; and lack of routine or punctuality. Could one not then identify twenty famous people in whom these features were evident: probably business types, entrepreneurs, managers, artists (actors, singers); many with some of these features but not achieving renown (hospital managers, perhaps?); and some in whom such traits are so extreme as to be dysfunctional, such that their lives are so chaotic that they cannot operate effectively in society, and hence attract medical/social input?

AJ Larner, Cognitive Function Clinic, WCNN, Liverpool, UK.

Brain Injury & Returning to Employment - A Guide for Practitioners

The author, who is well known in the field of vocational rehabilitation, has written a well laid out book with clear objectives. These are to ‘provide an overview of the cognitive and psychological issues associated with brain injury and return to work’ and this is achieved. It aims to offer occupationa­ tional techniques to address cognitive and psychological barriers to work, and addresses these in a limited fashion by providing basic information on these. The target audience is broad and includes employment related professionals working with this client group and therein lays the reason why the book might not provide the depth of information required for any one professional group.

The book offers a good emotive description of the issues surrounding brain injury and employment, which makes for easy reading. The author presents complex information on cognition in easily digestible chunks without being patronising. The chapters on vocational assessment and vocational rehabilitation are educative. However it under­ states/separates the physical aspects of brain injury, the practical aspects of returning to work, the rights of the client, and duties of the employer, all of which affect return to employment. The case studies are primarily descriptive, which is stated in the chapter introduction but to me present a missed chance to provide an interactive learning opportunity.

It would have been an opportunity to highlight ways various disciplines (target audience) could work together in returning a client to employment at various stages of the client’s journey – acute, post acute/rehabilitative medical phase and late vocational/social phase.

So in summary, interesting emotive reading, a good, gener­ al source of information that raises awareness about the issues (particularly cognitive and psychological) surrounding brain injury but might disappoint if expecting a comprehen­ sive guide to help practitioners return their clients to work.

It is a good starting point for vocational and rehabilita­ tion professionals, especially if it generates further learning, keeping in mind the paucity of literature available in voca­ tional rehabilitation.

Maya DeSouza, Spinal Cord Injury Centre Royal National Orthopaedic Centre.

Handbook on Cerebral Artery Dissection

This is Volume 20 of a series of “Frontiers of Neurology and Neuroscience” edited by Dr Bougousslavsky. It is an excellent little book on cerebral artery dissections and I would recommend it not only to neurologists with an interest in vascular disease and stroke physicians, but also any neurologist seeing acute neurology.

Cerebral arterial dissection has joined cerebral venous sinus thrombosis as a diagnosis that no longer remains the preserve of the neurologist. Twenty years ago it was thought to be rare and carry a poor prognosis, mainly because it was discovered late in very selected cases and/or at post-mortem. With increasing awareness and more advanced diagnostic technologies, the disease has become recognised far more often, and its spectrum is ever increasing. For a few years now, I have found clever­dick medical registrars suggesting the diagnosis in ward refer­ rals, and most recently even spotty SHOs and house physicians have joined in. Whilst this may reflect local teaching success, it also may leave the neurologist a bit frustrated. However, physicians tend to get nervous about doing more than including it in their differential diagnos­ sis, but some do start to investigate and treat it themselves. However, the unappreciated expanding clinical spectrum and pitfalls in investigation are rarely realised by the non­ neurologist, and larger numbers of cases may not only be missed, but unfortunately no longer even referred for neurological opinion.

This is where this excellent little book comes into its own. It hopes to “contribute to efforts linking clinical and basic science”, but I think its more practical value to neuro­ logists is that it provides succinct and largely well writ­ ten chapters on those aspects most important to the clinician. Herein lie the details which are way beyond the knowledge of physicians (at least at present). The epidemiology is dealt with by Schievink (excellent as always) and the many clinical manifestations are well set out. I will guarantee you will learn something new: the range of clinical symptoms and signs extends well beyond the clas­ sical descriptions, occurring in isolation or unusual combina­ tions.

Of course none of these clinical features is specific to a dissection. It therefore follows that these lesions should enter the differential diagnosis in much of acute cranial neurology (and if you read the book, also that of the cervi­ cal cord and root!) and that confirmatory tests are required. The next few chapters discuss these in the form of ultrasound, MR studies, and CT and catheter angiogra­ phy. Some of these can get a bit technical, but it is clear that a neurologist needs to have a reasonable understanding of them, particularly if the patient is being seen outwith a specialist neurosciences centre.

Subsequent chapters deal with prognosis and treatment, and it becomes strikingly clear that a randomised trial is required, which will obviously require multi-centre organi­ sation. One may start in the UK shortly (see www. dissection.co.uk): British neurology should do this well.

Intracranial arterial dissection is probably at the stage of knowledge where extra-cranial dissections were ten or fifteen years ago. One suspects that a similar evolution of knowledge will emerge in this subject, and Caplan’s chap­ ter is well worth a read. Much of the literature on this has been neurosurgical, but I suspect most intracranial dissec­ tions are missed unless they cause sub-arachnoid haemor­ rhage and that most neurologists seeing acute neurologi­ cal patients should be considering this diagnosis more often in the future.

As for the science, there are chapters on connective tis­ sue abnormalities found in skin biopsies, and the histo­ logical abnormalities within not only the dissected but systemic arteries in such patients, and these and the genet­ ic approach have provided some insight into the question of why such lesions occur. These chapters are less easily digestible for the clinician, though even I managed to understand them. The undoubted influences of environment­ al factors, both non-traumatic and traumatic, are also well covered.

In general I can find little to fault the book. Of course there are the usual problems which may arise with multiple authorship and with some repetition between chapters, but I did not spot any major manifestations between them. The writing styles naturally vary between the excellent and the turgid, and the latter sometimes makes the reading an effort, particularly in the non-clinical parts. Nevertheless I think this is a book which contains what you need to know, in a brief and largely clear style, and I would recommend it. Now, where is that spotty house physician…………….?

TP Enevoldson, WCNN, Liverpool.