

## Book Review

### Brain's Diseases of the Nervous System

Michael Donaghy

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This is the 11th Edition of Brain's Disease of the Nervous System. Russell Brain originally published Diseases of the Nervous System in 1933. In the preface to the first edition, Russell Brain pointed out that the previous 20 years had '... witnessed a remarkable development in neurology. Investigation of the effects of war injuries of the spinal cord had greatly increased our knowledge of reflex action in man'. This was not, of course, the only stimulus to producing the book, but it seems a pity that the spinal cord is not rather better dealt with in these pages. By the time the book reached the 7th edition, John Walton (Lord Walton) had joined Lord Brain in revising the book and Lord Walton continued as sole author for the 8th and 9th edition. The present Editor, Michael Donaghy, has completely reorganised this, the 11th Edition, and there are now 35 chapters contributed by 14 authors.

Readers of this Journal are naturally interested in how well spinal problems are dealt with. *Spinal Cord Disorders* has a chapter of its own within the section dealing with structural disease of the brain, spinal cord and nerve roots. The figures in this section are mostly very poor. The figures of imaging are too small and often difficult to interpret. Spinal cord injury is dealt with in the chapter headed *Disability, Rehabilitation, and Spinal Injury* which is itself in the first section labelled *Introduction*. The epidemiology of spinal cord injury relies on 1975 and 1985 references and gives the incidence as 1.3–5.0 per 100 000.

Spinal Shock has three superficial mentions in various parts of the book. I could not find pain in spinal cord injury mentioned in the sections on spinal cord disorders or spinal cord injury, but in the section on pain (less than two pages),

there are three and a half lines dealing with 'spinal cord and brain stem lesions affecting the spinothalamic tracks occasionally produce a burning and poorly localised pain ...'. This is surprising since a great deal has been written about pain in spinal cord injury showing that it is a significant problem and a major impediment to effective rehabilitation – something like 80% of patients of spinal cord injury complain of pain and something like 40% complain of severe pain. Perhaps one shouldn't complain that a text book of neurology deals so badly with the spinal cord and, in particular, spinal cord injury but *pain* is another matter altogether and one would expect a significant contribution in a book of this size and range. In the Index I could find no reference to the gate-control theory of pain which revolutionised the study and the interest when the theory was first put forward by Wall and Melzack in 1965.

In the section on Degeneration and Regeneration of the central nervous system I could see no mention of the other major contribution by Wall (who died in August this year). Wall demonstrated the rapid physiological re-organisation of central connections following damage leading to the uncovering of so-called 'silent synapses'. The uncovering and the sprouting of new synapses demonstrated that the response of nerve cells could be seen as an active response according to the functional needs of the organism and this has interesting implications in terms of recovery of function and neuromodulation, and the explanation for the phenomena of spinal shock.

However, leaving aside these matters, the book is an excellent reference book and, as such, it is strongly recommended.

LS Illis  
Editor *Spinal Cord*