PostScript

CORRESPONDENCE

Restless legs syndrome and peripheral neuropathy

The *Editorial* by Chaudhuri *et al*[1] opportunely reviews various aspects of restless legs syndrome (RLS), but it is disappointing that RLS associated with peripheral neuropathies is poorly treated. A few types of peripheral neuropathy associated with RLS are mentioned in table 1 (sensory neuropathy, Charcot-Marie-Tooth disease type 2), but are not discussed or referenced.[2 3] The occurrence of RLS in association with peripheral neuropathy may be more frequent than usually thought. Rutkove *et al*[4] reported a 5.2% prevalence of RLS in miscellaneous peripheral neuropathies, but we found RLS in 20 out of 70 consecutive patients (28.6%) with various forms of peripheral neuropathy.[5] Definite types of peripheral neuropathy, such as cryoglobulinaemic neuropathy, CMT2, diabetic neuropathy, and amyloid neuropathy, are especially prone to develop RLS, often as an early manifestation.[6] A significant association of RLS with positive sensory symptoms of peripheral neuropathy has been found,[3 6] suggesting that a disorder of the sensory inputs may be involved in the pathogenesis. Small fibre involvement could be the crucial factor for neuropathy to develop RLS, as small fibre neuropathy has been often demonstrated in association with the disease, by means of quantitative sensory testing[7] or skin biopsy with quantification of intraepidermal nerve fibres.[2]

Restless legs syndrome deserves consideration as a frequent, treatable, and probably underrecognised condition. Its prevalence in the general population may range between 5% and 15%.[1]

It is unclear how much of this percentage can be attributed to peripheral neuropathy; however it is suggested that as many as 45% of patients with RLS might have subclinical sensory neuropathies, and it seems that patients can be stratified based on the age of onset, which tends to be later in neuropathy associated RLS.[2] On the other hand, patients with common forms of neuropathy, such as diabetic and cryoglobulinaemic neuropathy, are known often to have RLS, further contributing to the population of "peripheral" RLS.

Pathogenetic hypotheses on RLS should deal with the paradox of a condition associated with either peripheral or central dysfunction. According to current views, the disease might be caused by dopaminergic dysfunction with loss of supraspinal inhibition and enhanced excitability of propriospinal mechanisms,[1] possibly including generators involved in locomotor patterns. Spinal structures involved in RLS, besides being released by dopaminergic dysfunction, might be activated by abnormal sensory nerve inputs associated with peripheral nerve damage[2 3 6]; in particular, changes in small fibres may trigger mechanisms of rewiring in the dorsal horn, as experimentally demonstrated after small fibre injury.[8]

As suggested by Polydefkis *et al*,[2] RLS associated with peripheral neuropathy may require a different therapeutic approach, using neuropathic pain medications rather than dopaminergic therapy. In our experience, gabapentin, trazodone, and amitryptiline were anecdotally effective.[3 6]

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BOOK REVIEWS

The cranio-cervical syndrome: mechanisms, assessment and treatment.

By Howard Vernon (Pp 262, £39.99). Published by Butterworth-Heinenmann, Oxford, 2001. ISBN 0 7506 4495 8

An unusual book, multiauthored and multidisciplinary, which despite the title deals largely with pain in general, and to an extent "whiplash injuries". The chapters contain wide ranging references and significant review material. The text often raises more questions than answers. A major drawback is that the chapters are not confluent and seem to be isolated contributions (some chapters clearly state that the content is modification of a previous publication or presentation). The scientific content of the chapters varies widely and in isolated chapters there are strong subjective views, not convincingly underpinned by scientific observations. There is excessive anatomical and physiological information on recognition, processing, and pathophysiology of pain. At the end of some chapters there is a brief paragraph or item relating to the book title. The chapter on diagnostic imaging provides visual material, but standard radiography dominates over modern imaging modalities such as MRI and CT. The chapter on biomechanics of the upper cervical spine concentrates largely on the relations between the atlas and the occipital condyle. A chapter on tension-type and cervicogenic headaches provides a review, including past trials, but little new information, which also applies to the chapter on the medical management of the craniocervical pain. The contribution on the psychological aspects of head and neck pain, by contrast, is far more comprehensive and useful. The chapter on whiplash injuries and the upper cervical spine again provides basic information, many references, but few practical suggestions. Manual therapy on children provides a highly personalised view of a treatment modality. Finally, the chapter on cervicogenic vertigo is practical and succinct, by contrast with the last chapter on vertebral basilar incidents which provides little new.

The book would be a useful acquisition for a library and provides useful references and comments for health practitioners dealing with patients with, or involved in litigation related to, injuries in the craniocervical area.

J Van Dellen

The new phrenology: the limits of localizing cognitive processes in the brain

Edited by W R Uttal (Pp 255, £27.50). Published by MIT Press, USA, 2001. ISBN 0 262 210 177

The notion that particular areas of the brain mediate specific functions is central to neurological diagnosis. In the 19th century, phrenologists made the rather bolder suggestion that particular cortical functions were reflected in the shape of the overlying skull, a claim not thought credible nowadays. However, William Uttal thinks that a modern variant of phrenology is alive and well, in the shape of neurologists, neuropsychologists, and cognitive scientists who think that particular regions of cerebral cortex mediate specific cognitive functions. Uttal rejects the notion that higher cognitive processes (such as memory or attention) can be localised to particular regions (or networks) in the brain. At best he suggests that this is naïve, at worst impossible. He argues trenchantly on two fronts. Firstly, he suggests that all attempts to provide a psychological taxonomy of cognitive processes have failed. If there is no taxonomy, then there can be no localisation. Secondly, he argues that experimental data claiming to localise specific cognitive processes in the brain (for example, from functional neuroimaging) are inconsistent and unreliable. The book thus presents a highly critical appraisal of the founding assumptions of cognitive neuroscience and behavioural neurology. Unfortunately, the data presented represent a very selective overview and interpretation of the field, and should be read with caution rather than enthusiasm. Uttal has a tendency to generalise inappropriately; specific problems with interpretation of a single experiment become general assertions that the technique is unable to provide any useful information. Similarly, generic scientific problems (such as deciding the appropriate level of statistical significance) are presented out of

context as specific problems for cognitive neuroscience and functional neuroimaging. It is always important to challenge the assumptions underlying any area of science, so I applaud Uttal for having written this interesting and thought provoking polemic. But it should be read carefully, and the claims made should be taken with many pinches of salt.

Geraint Rees

Anxiety disorders in children and adolescents. Research, assessment and intervention

Edited by Wendy K Silverman and Philip A D Treffers (Pp 418, £39.95). Published by Cambridge University Press, Cambridge, 2001. ISBN 0 521 78966 4.

Child psychiatric epidemiology has consistently identified anxiety disorders as one of the common forms of childhood psychopathology. However anxiety disorders have been less researched that the so called "disruptive-externalising" conditions. This may be due to the fact that they are less visible and that they feature less prominently among psychiatric clinic referrals. This book, based on a symposium held in Leiden, The Netherlands, in 1997 aims to provide an integrative summary of recent literature on anxiety disorders of children and adolescents. Behavioural cognitively oriented theories and clinical research are featured most strongly, but a biomedical perspective is also represented.

There is full discussion of well researched possible temperamental precursors as seen in young children with "behavioural inhibition" but the nature of family influences and relationships is also explored. The book provides a good update on post-traumatic stress disorder, a condition which is currently attracting considerable clinical and research attention. The well informed neuropsychiatry chapter concludes that anxiety disorders of children and adolescents are likely to involve both disorder specific and overlapping dysregulation in brain stem, limbic, and orbitostriatal cortical circuits. In some patients, obsessive-compulsive disorders may reflect an autoimmune illness related to rheumatic fever.

The chapters on psychological and pharmacological interventions should help inform clinical practice. Randomised control trials of cognitive behavioural treatments have demonstrated their superiority over waiting list control status. However, it is unclear to what extent they are also superior to psychoeducational support to children and parents. There is scientific evidence for the use of SSRIs and clomipramine in the treatment of obsessive-compulsive disorders.

The book is a useful update in a relatively uncrowded research area of childhood psychopathology.

Elena Garralda