six of the 11 patients. This was slight in two and moderate in one. The changes were pronounced in the three patients (2, 7, and 8) who had the most extensive changes in other areas, and indeed can be seen in hind-sight in fig 1A of our paper.

Postlumbar puncture headache

In their article on the relation of substance P concentration and history of headache after lumbar puncture¹ Clark *et al* reflected on prevention.

In a controlled, prospective, and blinded study, we have examined frequency and risk factors for the postlumbar puncture syndrome.² We found that autonomic dysregulation on clinical examination, the patients self-assessment, and their tendency to show dysregulation in their vegetative reactions to various stimuli such as fearful experiences, school stress etc, and their general anxiety towards lumbar puncture itself were the main predictors for the syndrome to occur. The main goal of our study was to prospectively examine the rate of occurrence of the postlumbar puncture syndrome after using an atraumatic puncture cannula referred to as the Sprotte-Pajunk or Würzburg needle in Germany.³ The use of the new 22-gauge needle reduced the frequency of the syndrome from over 30% to less than 5%. These figures are even lower now in the poststudy period with over 8000 punctures to date. Similar experiences have been reported by other neurology departments in Germany.

KLAUS V TOYKA
Neurologische Klinik der Julius-Maximilians-Universität,
Josef-Schneider-Strasse 11,
D-97080 Würzburg, Germany

Since publication of the study described,² Professor Toyka's department has received a donation from the manufacturer of the needle.

Correspondence to: Dr Toyka.

- 1 Clark JW, Solomon GD, Senanayake PD, Gallagher C. Substance P concentration and history of headache in relation to postlumbar puncture headache: towards prevention. *J Neurol Neurosurg Psychiatry* 1996;60:681-3.
- 2 Müller B, Adelt K, Reichmann H, Toyka KV. Atraumatic needle reduces the incidence of post-lumbar syndrome. *J Neurol* 1994;241:376-80.
- 3 Sprotte G, Schedel R, Pajunk H. Eine "atraumatische" Universalkanüle für einzeitige Regionalanästhesien. *Reg Anesth* 1987;10:104-8.

Bent spine syndrome

We read with great interest the report *Bent spine syndrome* by Serratrice *et al*.¹ In eight elderly patients, the authors postulate that the bent spine syndrome is related to weakness of the lumbar paraspinal muscles. This is different from the well known, pronounced lordosis in patients with myopathies. Lordosis in myopathies is used to shift the centre of gravity posteriorly to prevent falling due to torsopelvic instability secondary to hip extensor weakness with subsequent hip flexion contracture,² when the back is supported by ligaments and the iliosacral joints. Furthermore, it is known that the earliest reported muscle weakness in muscular dystrophy is the gluteus maximus,^{3,4} the paraspinal muscles are also weak and have evidence of degeneration and fatty infiltrates, which we have shown with MRI studies.⁴

We are surprised that the cases reported by Serratrice *et al*, with lumbosacral weakness and atrophy, had bent spine rather than lordosis and wonder if there were other weak muscles in these patients causing the forward bending rather than gravity enhancing lordosis. We have, for example, noted the bent spine syndrome in patients with distal myopathy in whom the lordotic posture could not be tolerated, causing them to fall due to distal leg weakness.

T E BERTORINI
Departments of Neurology and Pathology,
University of Tennessee, Memphis,
Memphis, TN, USA
I M SIEGEL
Departments of Orthopaedics,
Neurological Sciences and PM and R,
Rush Presbyterial St Luke's Medical Center,
Chicago, IL, USA

Correspondence to: Professor T E Bertorini, University of Tennessee, Memphis, Department of Neurology, 855 Monroe Avenue, Room 415, Memphis, TN 38163, USA.

- 1 Serratrice G, Pouget J, Pellissier JF. Bent spine syndrome. *J Neurol Neurosurg Psychiatry* 1996;60:51-4.
- 2 Siegel IM. Management of musculoskeletal complications in neuromuscular diseases: enhancing immobility and the role of bracing and surgery. In: Fowler WM Jr, ed *Advances in the rehabilitation of neuromuscular diseases*. Philadelphia: Hanley and Belfus, 1988:553.
- 3 Sutherland DH, Olshen R, Cooper L, Wyatt M, Leach J, Mubarak S, Schultz P. The pathomechanics of gait in Duchenne muscular dystrophy. *Dev Med Child Neurol* 1981;23:3-22.
- 4 Hsu JD, Furumasa J. Gait and posture changes in the Duchenne muscular dystrophy child. *Clin Orthop* 1993;288:122-5.
- 5 Bertorini TE, Horner LH, Halford H. Characteristics of magnetic resonance imaging (MRI) in limb and axial weakness in myopathies. Presented at the annual meeting of the American Academy of Neurology, 23-30 March 1996. *Neurology* 1996;46S:A345.

Serratrice replies:

We did not postulate that the bent spine syndrome is related to weakness of "lumbar" paraspinal muscle but to *paraspinal* muscle atrophy and weakness.

G SERRATRICE

NOTICES

ANNOUNCEMENT

The European Spine Society: The AcroMed Prize for Spinal Research 1997

For presentation at the 8th Annual Meeting of the European Spine Society, Kos, Greece, 10-13 September 1997 and a prize of Dfl 10 000. Applicants are requested to submit an original study, not previously published or submitted elsewhere, including figures and references for later publication in the European Spine Journal. Three copies of the manuscript to: Mrs J Reichert-Schild, Seefeldstrasse 16, CH-8610 Uster, Switzerland. Fax: 00 41 1 994 14 03. Closing date: 15 July 1997.

American Autonomic Society

2-4 November 1997. The VIII International Symposium of the Autonomic Nervous System will be held in Honolulu, Hawaii.

For further information please contact: Anita Zeller/Sue Paxton, Registrars, American Autonomic Society, Mayo Clinic, 811 Guggenheim Building, 200 First Street SW, Rochester, MN 55905, USA. Phone 507-284-3375, Fax 507-284-1814, E-Mail zeller.anita@mayo.edu. Deadline for abstracts is 15 July 1997.

Bethesda Hospital second rehabilitation conference, "Innovations in Trauma Rehabilitation", will be held at the Hilton Hotel in Melbourne, Australia, 27-29 October 1997.

The conference is designed for those interested in the management and treatment of persons who have sustained traumatic injuries. The focus of the conference will be on approaches and interventions relevant to the management of acquired brain injury and chronic pain. Service delivery issues, both current and future, in relation to these areas will also be addressed. The programme will benefit medical practitioners, health professionals, and insurers working in trauma rehabilitation and will consist of a combination of keynote addresses and concurrent paper sessions.

The aims of the conference are:

- To provide participants with practical strategies and innovative approaches to the management of individuals following traumatic injury
- To explore issues surrounding the efficacy of treatments and outcomes
- To highlight current international trends as the management of rehabilitation services moves into the 21st century.

For further information, please contact: Margaret McLauchlan, Bethesda Hospital, (03) 9420 5333.

BOOK REVIEWS

All titles reviewed here are available from the BMJ Bookshop, PO Box 295, London WC1H 9TE. Prices include postage in the United Kingdom and for members of the British Forces Overseas, but overseas customers should add £2 per item for postage and packing. Payment can be made by cheque in sterling drawn on a United Kingdom bank, or by credit card (Mastercard, Visa or American Express) stating card number, expiry date, and your full name.

Surgical Management of Neurovascular Disease. Third Edition. Edited by ROBERT G OJEMANN, CHRISTOPHER S OGILVY, ROBERT M CROWELL and ROBERTO C HEROS. (Pp 600; £165.00). 1995. Baltimore: Williams and Wilkins. ISBN 0-683-06629-3.

This is a third edition of a title dedicated to neurovascular conditions. As such the authors have addressed the four main themes of cerebrovascular occlusive disease, intracranial aneurysms, vascular malforma-

tions, and brain haemorrhage. They have adopted a clinical approach addressing the disorders in order of clinical frequency. The pathophysiology, investigation, and subsequent treatment are considered.

The book is particularly well illustrated, and the radiographic replications are of good quality. The cartoons demonstrating operative techniques are also well illustrated. These are supplemented by intraoperative colour photographs, which have been successful in demonstrating the key anatomical points. The treatment options are largely based on the author's personal experience, but they do mention alternatives and these are well referenced. However, I did find the chapter on endovascular techniques to be rather superficial in comparison with the other key subjects discussed.

My only criticism is that the book does not devote much attention to the evolving techniques for assessing cerebral blood flow. Imaging techniques are presently being evaluated for their usefulness in directing treatment and assessing therapy. It would seem that such techniques will play an important part in the management of cerebral vascular diseases in the near future, and it would have been appropriate to have devoted a chapter to them. Overall this third edition of the *Surgical Management of Neurovascular Disease* is a comprehensive review, well written and particularly well illustrated. As such it would be appropriate for the general neurosurgical readership as well as those who have specialised in neurovascular conditions. I recommend this piece of work strongly.

PETER KIRKPATRICK

Neurophysiological Basis of Cerebral Blood Flow Control: An Introduction. Edited by S MRAOVITCH and R SERCOMBE. (Pp 408; £40.00.) 1996. London: John Libbey & Co Ltd. ISBN 0-8619-6272-9.

This text aims to provide a comprehensive review of the cerebral circulation and its regulation, and is directed at undergraduates and graduates of both the natural sciences and medicine.

The book is divided into two equal sections. The first provides an account of the anatomy and comparative anatomy of the brain vasculature, together with the relevant basic physiology, biochemistry, and pharmacology of the central nervous system. The second section discusses experimental and clinical methods of study of the cerebral circulation and metabolism, current hypotheses on the neural and humoral regulation of cerebral blood flow, and the clinical implications for conditions such as stroke, subarachnoid haemorrhage, epilepsy, migraine, and autonomic dysfunction.

The text is well illustrated, easy to read, and certainly fulfills its major objective or providing an introduction to the study of cerebral blood flow. Whether it will prove as attractive to clinicians as to natural scientists

is less certain. The section discussing clinical methods of investigation of the cerebral circulation makes no mention of such techniques as transcranial Doppler, NMR diffusion imaging, or dynamic perfusion CT. The clinical section is also rather disappointing in providing no discussion of the altered cerebral haemodynamics which accompany head injury, only a scant overview of the literature on cerebral ischaemia, and very little in the way of discussion of the therapeutic manoeuvres which are available either to enhance cerebral blood flow or to protect the brain from the effects of impaired cerebral perfusion.

These, however, are relatively minor criticisms of what is a useful and enjoyable text on the regulation of cerebral blood flow, which is presented in a very reader friendly manner. It is to be commended to clinicians in training.

ROBERT MACFARLANE

Clinical Skills in Neurology. Edited by MICHAEL HARRISON. (Pp 153; £15.99.) 1996. Published by Butterworth Heinemann, Oxford. ISBN 0-7506-2520-1.

An outpatient note reading "Wasted hands + fascic + brisk reflexes = MND = TCI" might not satisfy a notes auditor but his registrars got used to such pithy annotations from Michael Harrison realising that they epitomised the clarity and economy of his clinical method, now encapsulated in this slender book for the neurological tyro. A medical student who had retained the correct three quarters of this book would need to look no further for reading matter and if successfully applying the wisdom of this book in clinical practice would have more than sufficient neurological skill. A senior house officer timorously approaching the neurology job on the rotation would feel that it was a pretty simple business once he or she had carefully read these 146 pages. This is of course what this book intended to achieve, so perhaps the only surprising thing (to those that do not know him) is that Professor Harrison stands a good chance of succeeding in his objectives. However, in the highly competitive market of neurology books for students the only reason why it might not be because the pearls in this book are still enclosed in the unlustrous oyster shell of a somewhat old fashioned format.

Few will need to know more about examination of the nervous system than is in the 69 pages of the first section and most neurology clinics could be coasted through with the aid of the middle section on common neurological problems. The novitiate neurological senior house officer would know more than which forms to fill in after reading the third section on neurological investigations. So there are pearls on every page but sadly many of the less clinically elegant competitors of this book may gain advantage on the bookstore shelves because the presen-

tation is by today's standards disappointing. There are no coloured boxes of helpful hints, although there are good illustrations of muscle testing, scans, and diagrams of patterns of sensory loss. The text is often in large unbroken lumps and it is possible that an impatient student used to the sound bites of a CD-ROM may not be attracted to what looks like an old fashioned book, notwithstanding the nice cover design. This would be a great pity since when read the text shines with a clarity which could only come from the pen of a master clinician whose great skill lies in understanding where people can go wrong in neurological assessment—for example, "The commonest cause of loss of reflexes is poor technique with a clumsy blow with a hard hammer, off centre, to the tendon of a muscle held tight by a frightened patient" or "... if the only abnormality ... is reflex asymmetry, care should be taken not to over interpret this finding—it may prove to be illusory".

Even battle hardened neurology senior registrars (while such a species continues to exist) would be well advised to read this book before teaching the undergraduates so as to discover the wood from the trees before leading their students to an over close examination of the bark. I will urge my students and senior house officers to actually read this book rather than flipping through the pages gathering multicoloured tips as they will want to do with other introductory books. In later editions, however, it might be wise to make a small acknowledgement to the times by packaging the text into smaller more appetising pieces so that less sedulous students can also taste all the delights of this book.

CHRIS ALLEN

SHORT NOTICES

Readers may be interested in: **Acquired Brain Injury in Childhood and Adolescence: A Team and Family Guide to Educational Program Development and Implementation** Edited by Alan L Goldberg. (Pp 247 \$54.95.) Published by Charles C Thomas, Illinois 1996. ISBN 0-398-06589-6.

Hand and Brain Edited by Alan M Wing, Patrick Haggard and J Randall Flanagan. (Pp 513 \$65.00.) Published by Academic Press, California 1996. ISBN 0-12-759440-X.

Intracranial and Intralabyrinthine Fluids. Basic Aspects and Clinical Applications Edited by A Ernst, R Marchbanks and M Samii. (Pp 300.) Published by Springer-Verlag, Berlin 1996. ISBN 3-540-60979-2.