

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 puncture<sup>1</sup> 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.<sup>2</sup> 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.<sup>3</sup> 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.

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

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- 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 einseitige Regionalanästhesien. *Reg Anesth* 1987;10:104-8.

### Bent spine syndrome

We read with great interest the report *Bent spine syndrome* by Serratrice *et al*.<sup>1</sup> 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,<sup>2</sup> 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,<sup>3,4</sup> the paraspinal muscles are also weak and have evidence of degeneration and fatty infiltrates, which we have shown with MRI studies.<sup>4</sup>

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.

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- 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

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.

## 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.

## 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 OGLIVY, 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-