

Letters

Intradural herniated cervical disc associated with chiropractic spinal manipulation

Sir: We read with interest the report by Parnell,¹ on cervical intradural disc protrusion, and describe a new case in which severe myelopathy followed spinal manipulation.

A 31 year old man developed torticollis followed by right cervico-brachial neuralgia at C8-T1 level. Cervical spine manipulation was performed on 7 May and 14 May 1985. On 17 May he developed a sensory-motor deficit in the lower limbs, then the upper limbs, and sphincteric dysfunction. There was a spastic tetraparesis, worse in the lower limbs, with a bilateral Babinski sign. The response of the right triceps reflex was reversed. There was hypoaesthesia below the T6 level and superficial sensation was blunted at the extremities of the upper limbs. There was also bladder paralysis and retention of urine. Myelography with contrast showed a lateral defect of extra-dural type at C5-C6 disc level and a complete block in front of the lower part of the C6 body. A CT scan, performed immediately afterwards, confirmed a posteromedial protrusion of the C5-C6 disc. At that level, the premedullary space was not visible. At C6-C7 level (fig), the subarachnoid spaces were interrupted by a right posterolateral disc herniation which pushed back the spinal cord. After myelography, the spasticity of the lower limbs and the motor deficit in the upper limbs increased.

Surgical treatment was performed urgently through an anterior approach. At C5-C6 level, the protrusion was curetted; at C6-C7 level, there was an extra-intradural stud-like herniated disc; removal of this was

followed by a leak of CSF through the dural defect. After operation the patient improved slowly; three weeks later he could stand upright.

An intradural (in fact extra and intradural) disc herniation is very rare and most often observed in the lumbar regions.² In 1988, we found only six cases¹⁻⁷ at the cervical level. The symptoms were those of an acute radiculo-medullary compression, often initially lateral. According to Parnell¹ the association of a lower motor neurone arm weakness paraparesis, a dissociated sensory loss (or a Brown-Sequard syndrome) and a Horner's syndrome point to the diagnosis. The diagnosis may be suspected when myelography shows an intradural irregular block but the dural sheath is not pushed back and, as in our case, was readily established by CT following myelography. At the lumbar level, in patients with a long history, an intradural disc herniation may be explained by the adherence of the dural sheath to the posterior longitudinal ligament or by its progressive erosion by a free fragment of disc.⁵ At the cervical level, it is the result of a strong physical effort. Our case is the first in which spinal manipulation was responsible. We agree with Lanska *et al*:⁸ doctors and chiropractors should be aware of this complication which may cause a severe neurological deficit requiring an emergency operation.

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References

- 1 Parnell AP. Cervical intradural disc protrusion. *J Neurol Neurosurg Psychiatry* 1988;51:1007.
- 2 Smith RV. Intradural disc rupture. Report of two cases. *J Neurosurg* 1981;55:117-20.
- 3 Marega T. Ernia del disco cervicale epulsa nel sacco durale. *Arch Putti Chir Organi Mov* 1959;12:425-30.
- 4 Durig M, Zdrojewski B. Intradurale sequestration einer cervikalen diskushernie. Ein Kausuistischer Beitrag. *Arch Orthop Trauma Surg* 1977;87:151-7.

- 5 Roda JM, Gonzalez C, Blazquez MG, Alvarez MP, Argüello C. Intradural herniated cervical disc. Case report. *J Neurosurg* 1982;57:278-80.
- 6 Caetano de Barros A, Caetano de Barros M. Traumatic extradural and intradural herniation of cervical disc treated surgically. *Surg Neurol* 1984;21:577-84.
- 7 Einsenberg RA, Bremer AM, Northup HM. Intradural herniated cervical disc: a case report and review of the literature. *Am J Neuroradiology* 1986;7:492-4.
- 8 Hodge CJ, Binet EF, Kieffer SA. Intradural herniation of lumbar intervertebral discs. *Spine* 1978;3:346-50.
- 9 Lanska DJ, Lanska MJ, Fenstermaker R, Selman W, Mapstone T. Thoracic disc herniation associated with chiropractic spinal manipulation. *Arch Neurol* 1987;44:996-7.

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Sciatic nerve damage due to toilet seat entrapment: another Saturday night palsy

Sir: We report two patients who suffered sciatic nerve palsy due to pressure from a toilet seat during a period of unconsciousness.

A 33 year old man was admitted as an emergency complaining of swelling, numbness, and weakness of his left leg. He had administered a solution of crushed barbiturate tablets by injection into his left femoral vein 15 hours earlier, in addition to taking oral barbiturates. Six hours after the injection, he had been found by the police slumped in a public toilet, with his left buttock and thigh wedged in the toilet seat. Some effort was required to extract him from this position. He recovered consciousness after being given intravenous naloxone in the local casualty department, and spent the night in police custody, at which point his symptoms of left leg weakness became apparent.

On examination, he was a well nourished man with multiple venous varicosities and injection marks, and a swollen, tense left leg. Erythema of the skin was evident on his left buttock. Neurological examination of the right leg was normal. In the left leg, hip flexion was normal, but knee flexion was weak, (MRC grade 3-4), and movements of the ankles and toes virtually absent (MRC grade 2). Sensation to light touch and pinprick was absent over the posterior aspect of the thigh and calf, and over the lateral aspect of the calf and the dorsum and plantar aspect of the foot, sparing the medial malleolus. The knee jerk on the left was reduced compared with the right side, and the ankle jerk

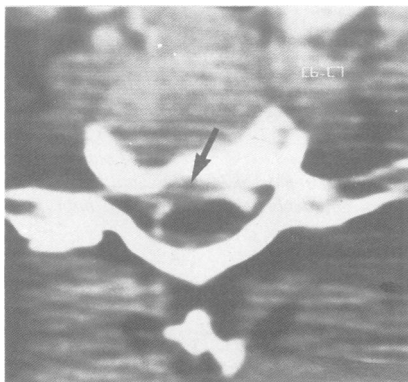


Fig CT myelogram showing the disc protrusion (←) at C6-C7 level.