POSTERIOR EPIDURAL MIGRATION OF SEQUESTRATED LUMBAR DISC

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SUMMARY :

Posterior epidural migration of sequestrated disc is fairly rare. Since clinical and radiological findings are not typical, the diagnosis of these cases has some importance. In our opinion the best diagnostic method is postmyelographic CT.

KEY WORDS :

Lumbar disc. Disc migration.

INTRODUCTION

Some degree of migration has been found in one-third of patients with extruded lumbar disc (1). Migration may be subligamentous, epidural, lateral or posterolateral. Sometimes it may even penetrate the dura or radix and resemble an intradural or intraradicular tumour.

So far there is one reported case of a cervical and two of lumbar discs that migrated to the posterior surface of the dural canal (2,3,4).

Posterior epidural migration of sequestrated lumbar disc does not have typical discal hernia findings. Being able to choose the suitable diagnostic method this unique case gave us an idea of the choice of diagnostic method.

CASE REPORT

A 53 year-old man who had been suffering from left leg pain had relief to some degree with conservative treatment. Fifteen days later he had another painful episode and was hospitalized for physical therapy. Acute paraparesia developed on the tenth day after admission. On neurosurgical consultation there was paraparesia which was prominent distally, both patella and Achilles reflexes were abolic. Walleix sign was positive and he was unable to stand up without help. There was no sensory deficit or sphincteric problem. Cremasteric and anal reflexes were intact.

Plain X-rays of the lumbar vertebral region verified narrowing on L4-5 and L5-S1 intervertebral spaces.

Spinal CT done on admission to hospital (Fig. 1) showed that the spinal canal was wide enough, but L3-4, L4-5, L5-S1 disc protrusions filled the epidural

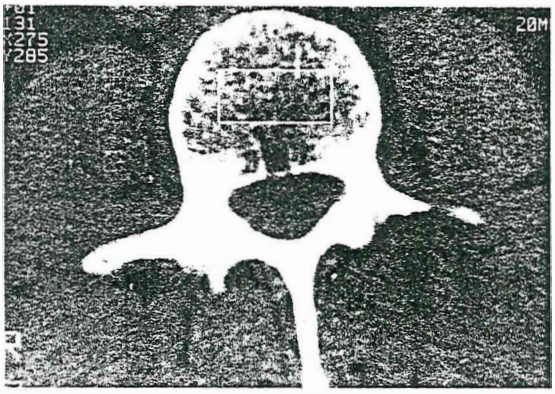

Fig. 1 : Preoperative CT of level L3-L4

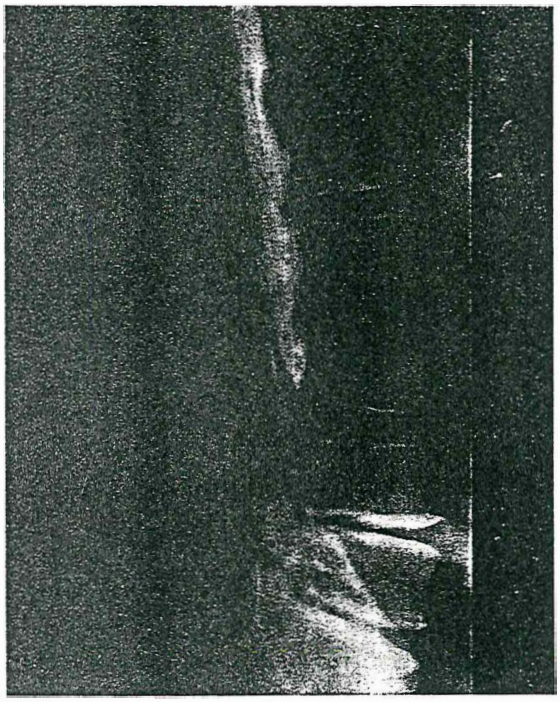

Fig. 2 : Myelography showed a complete block at L3 level and narrowing of L4-5, L5-S1 intervertebral space.

space. Intrathecal metrizamid myelopraphic CT revealed a soft tissue mass which was pressing and displacing the dural sac anteriorly (Fig. 3).

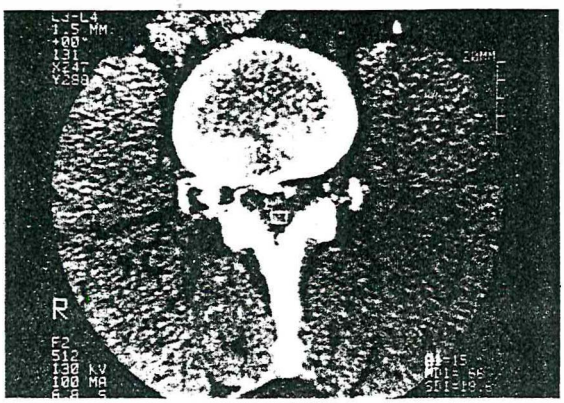

Fig. 3 : Post myelographic CT revealed a soft tissue mass.

The patient was taken to urgent operation. There was no epidural fat when partial L3 hemilaminectomy was done. The posterior longitudinal ligament of the L3-L4 level was intact. Dural sac was found to be pressed and displaced by hard yellowish-white cartilagenous extruded disc material. This sequestrated material was taken out the dural sac expanded and bilaterally compressed L3, L4 nerve roots were decompressed. Histopathology of the material revealed intervertebral disc.

The patients's pain disappeared in the early postoperative period and started to walk on the second postoperative day. He was discharged on the 7th day without any neurogical deficit. Follow-up examination 2 months after the operation also showed no neurological deficit. Control CT was normal.

DISCUSSION

There are two reported case of posterior epidural migration of extruded lumbar disc. Lichtor in his case related the posterior migration partly to lumbar fusion (4). Our patient had no trauma or history of an operation related with the specific region. In contrast to the case of (Lutz at al.) who had sensorial deficit, our case had prominent motor deficit and had intact sacral elements (5). For investigation of the spinal region today, myelography, CT, MRI and postmyelogram CT are widely used.

Although it is generally accepted that MRI is superior to other methods because sagittal sections can be elicited for the extruded disc material this is not so. Postmyelogram CT proved to be most useful both on the reported cases and our patient (4,5). In the precontrast study we were not able to determine the cause of the posterior compression.

On postmyelogram CT the subarachnoid space and dural sac the were found to be displaced anteriorly and recording of the density of the posteriorly placed mass, the patient's complaints of sciatica and the width of the spinal canal made us think it was a posteriorly migrated extruded lumbar disc.

MRI was not performed. The operative findings showed full accordance with the postmyelogram CT.

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REFENCES

1. Fries JW, Abodeely DA, Vijungco JG, et al: Computed tomography of herniated and extruded nucleus pulposus. J Comput Assist Tomogr 6:874-87, 1982
2. Manabe S, Tateishi A, Epidural migration of extruded cervical disc and its surgical treatment. Spine 11:873-8, 1988
3. Masaryk TJ, Ross JS, Modic MT, et al: High-resolution MR imaging of sequestered lumbar intervertebral disks. Am J Roentgen 150:1155-62, 1988
4. Lichtor T, Posterior epidural migration of extruded lumbar disc. Surg Neurol 32:311-2, 1989
5. Lutz JD, CT myelography of a fragmant of a lumbar disc sequestered posterior to the thecal sac. AJNR 11:610-1, 1990