DORSAL EPIDURAL MIGRATION OF EXTRUDED LUMBAR DISC

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E. Özyurt, M.D. ** / Z. Akar, M.D. ** / M. Hancı, M.D. ****
N. Karaağaç, M.D. *** / C. Kuday, M.D.***

* *Professor, Department of Neurosurgery, Faculty of Medicine, İstanbul University, İstanbul, Türkiye*
** *Associate Professor, Department of Neurosurgery, Faculty of Medicine, İstanbul University, İstanbul, Türkiye*
*** *Associate Professor, Department of Neurology, Faculty of Medicine, İstanbul University, İstanbul, Türkiye*
**** *Research Assistant, Department of Neurosurgery, Faculty of Medicine, İstanbul University, İstanbul, Türkiye*

SUMMARY

A-43-year-old man with a progressive weakness of lower limbs in association with acute lower back pain is presented and epidural migration of herniated lumbar disc is discussed.

Key Words: Free disc fragment, disc migration

INTRODUCTION

Herniation of the nucleus pulposus through the annulus fibrosus in the lumbar region usually occurs laterally and compresses adjoin nerve roots, but may occasionally occur centrally, compressing the cauda equina. A free fragment of the nucleus pulposus may extrude and lie above or below the level of the disc space. Migration of free fragment has been found in 35% of patients with herniated lumbar discs (1). The most common way of disc migration is the posterolateral direction (2). Rarely, disc material may penetrate into the dura and resemble an intradural tumor.

CASE REPORT

A 43- year- old man with one month history of severe lower back pain radiating to both thighs presented with an acute onset of progressive weakness on his lower limbs. Pain was aggravated by sneering and conning. Neurologic exam was remarkable for motor weakness in the muscles of both ankle flexors and extensors. There was no dermatomal sensory disturbance over the lower limbs. But both ankle and knee reflexes were abolished.

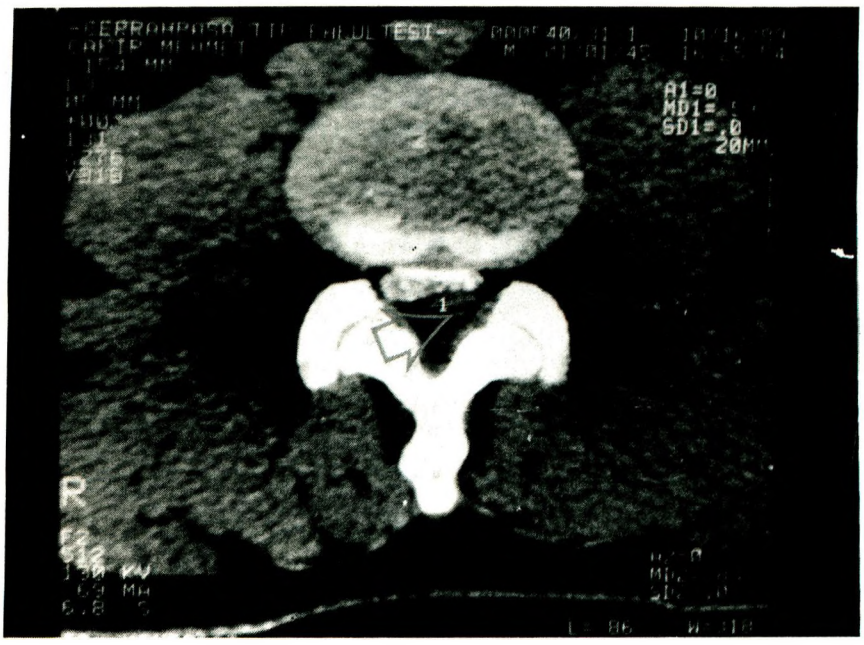
Radiographic studies showed no abnormality except, a narrowing of intervertebral space at L4-L5 level.

CT examination with intrathecal and I.V. contrast injection showed the presence of an epidural mass with disc density (83 HU), without any contrast enhancement, posterior to caudal sac extending from L3 to L5 (Fig 1A, 1B).

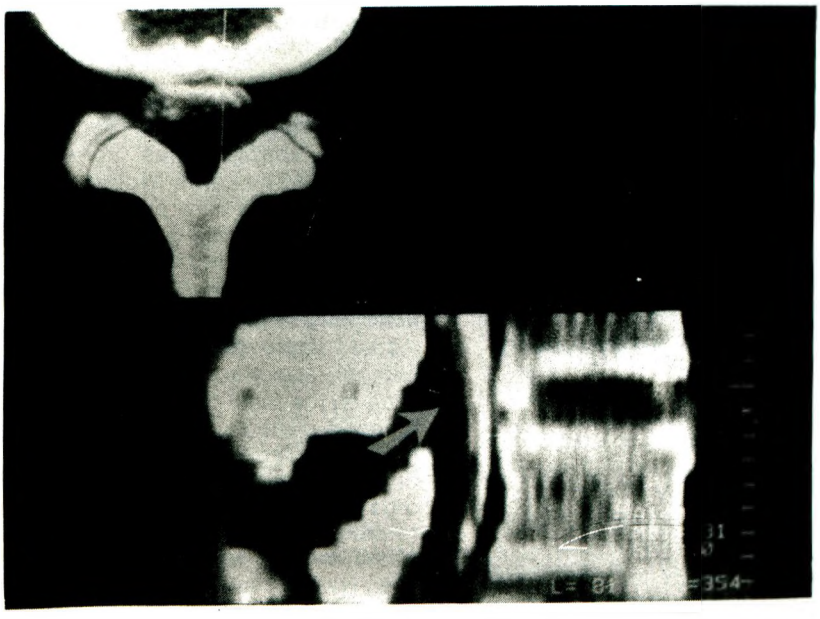
This patient was taken to surgery where a wide laminectomy was done at L3-L4 level. Soft tissue mass which was densely adherent to the dura mater was found and removed. Exploration showed a herniated disc which seemed to be originating from L4-L5 level on the left side. The pathological examination revealed the existence of fibroelastic tissue (ligamentum flavum) and nucleus pulposus.

DISCUSSION

This is the second reported case of lumbar disc herniation with migration to the posterior aspect of the caudal sac. First reported case was located at the L2-L3 level (3). The density of lesion of our case was lower than the density of normal disc (49 HU), probably due to the degenerative process of patent disc (L4-L5) which has also a low density (56 HU). The origin of the particular herniated disc is not clear and to determine it with classical radiologic studies is difficult. The MRI examination is capable of showing accurately the interspace of origin in most cases of sequestered lumbar discs, but free fragment of discs has not been detected clearly (4). The post myelogram CT with I.V. contrast injection was the most sensitive radiologic study for authors diagnosing the rare cases of a herniated lumbar nucleus pulposus.



A) Axial tomogram



B) Sagital reconstruction

FIGURE 1: CT with contrast enhancement, shows extradural material of disc at the L3-L4 level displacing compressing the caudal sac anteriorly.

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