

POSTERIOR EPIDURAL MIGRATION OF SEQUESTERED LUMBAR DISC FRAGMENT CAUSING CAUDA EQUINA SYNDROME

MIGRAÇÃO EPIDURAL POSTERIOR DE FRAGMENTO DE DISCO LOMBAR SEQUESTERADO QUE CAUSA SÍNDROME DA CAUDA EQUINA

MIGRACIÓN EPIDURAL POSTERIOR DE FRAGMENTO DE DISCO LUMBAR SECUESTRADO QUE CAUSA SÍNDROME DE CAUDA EQUINA

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ABSTRACT

Posterior epidural migration (PEM) of a sequestered free lumbar disc fragment is rare. The rarity is due to presence of several anatomical restraints which restrict a free fragment to move to the posterior compartment. This unusual presentation of disc herniation appeared in the literature either as a single case report or in small series from two to six cases. Herein two new demonstrative cases will be presented with a brief review of the literature.

Keywords: Cauda equina; Intervertebral disc displacement; Intervertebral disc; Surgical procedures, operative.

RESUMO

A migração epidural posterior (PEM) posterior epidural migration de fragmento de disco lombar livre sequestrado é rara. A raridade deve-se à presença de várias restrições anatômicas que impedem que o fragmento livre se mova para o compartimento posterior. Essa apresentação incomum de hérnia de disco apareceu na literatura como relato de caso único ou em pequenas séries de dois a seis casos. Neste artigo, são apresentados dois novos casos demonstrativos, com uma breve revisão da literatura.

Descritores: Cauda equina; Deslocamento do disco intervertebral; Disco intervertebral, Procedimentos cirúrgicos operatórios.

RESUMEN

La migración epidural (PEM) posterior Epidural Migration de fragmento de disco lumbar libre secuestrado es rara. La rareza se debe a la existencia de varias restricciones anatómicas impidiendo que el fragmento libre se mueva hacia el compartimento posterior. Esa presentación no común de hernia de disco apareció en la literatura como un relato de caso único o en pequeñas series de dos a seis casos. En este artículo, se presentan dos casos nuevos demostrativos, conjuntamente con una revisión breve de la literatura.

Descriptores: Cauda equina; Desplazamiento del disco intervertebral; Disco intervertebral; Procedimientos quirúrgicos operativos.

CASE 1

A 53-year old male was admitted because of weakness of the lower extremity and inability to void for a day. He described no considerable history in the last few weeks. Neurological examination showed some decrease strength score of 3/5 on dorsiflexion of both feet. The sensation of the saddle area was also disturbed with bladder dysfunction necessitating a Foley catheter.

Magnetic Resonance Image (MRI) revealed an isointense mass located posterior to the theca at L3-L4 level. It had the intensity relative to the intensity of the intervertebral disc showed in T1-weighted sagittal images (Figure 1a). The mass had heterogeneous intensity in T2-weighted sagittal and axial images (Figure 1b and 1c).

The patient underwent surgery within a few hours later with diagnosis of ligamentum flavum or synovial cyst. Surprisingly, after L3 laminectomy a big disc fragment lying on the dura mater was found. The fragment's disc which was loosely adhered to the dura was detached with careful dissection (Figure 1d).

Subsequently, the corresponding disc space which had a tear in its annulus was approached and degenerated disc material was removed.

The patient was discharged with partial recovery a few days after surgery, however, he fully recover a month later.

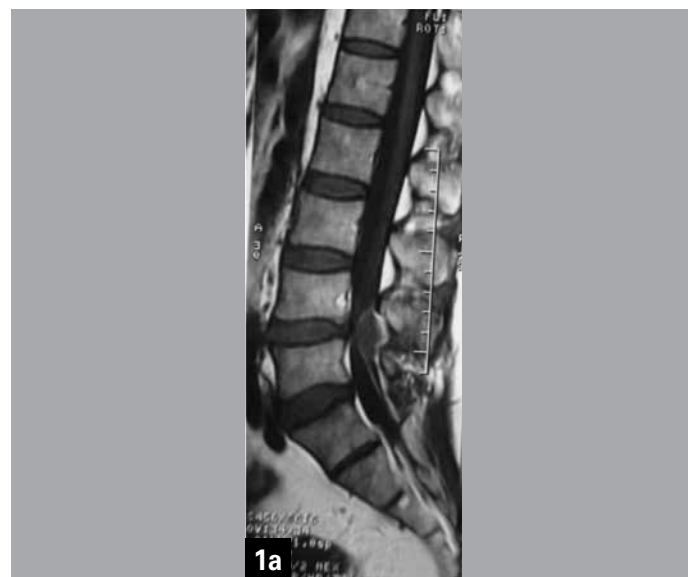


Figure 1a. T1-weighted image showing a posteriorly located mass at the level of L3- L4- it is isointense relative to intervertebral disc. (L5 is sacralized)

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Figure 1b. T2 –weighted sagittal image. Demonstrating a mass located posterior to the theca at same level.



Figure 1c: T2-Weighted Axial view at the same level showing a central posteriorly located mass.

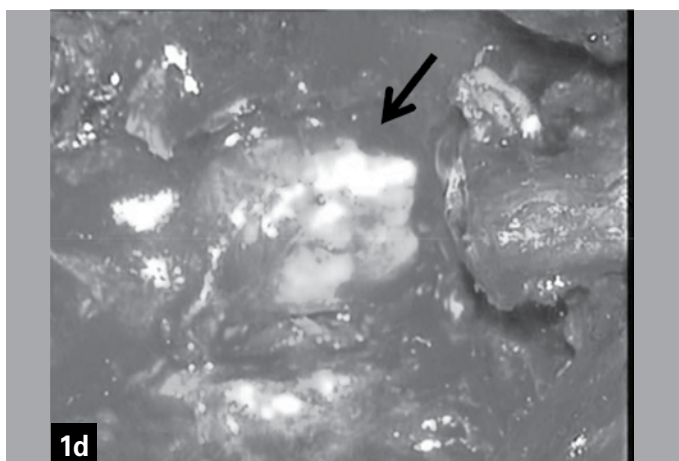


Figure 1d. Intraoperative view revealing a huge sequestered disc fragment on the dural sac.

CASE 2

A 57-year-old male was referred with chief complain of bilateral radiculopathy in the lower extremity. Pain had characteristics of L5 root sciatica and was more prominent on the right side. The scenario was started after lifting a heavy object. Neurological examination revealed decrease in force of dorsiflexion of the right foot with the score of 3/5.

MRI revealed L4L5 disc protrusion with mild retrolisthesis of L4 on L5. Posteriorly, the dural sac was compressed with a mass. This mass was isointense both in T1 and T2 images (Figures 2a, 2b and 2c). Diagnosis of posteriorly migrated disc fragment was made. This was confirmed after partial L4 laminectomy (Figure 2d). Subsequent to removal of such a rather big fragment, L4-L5 disc was exposed from the right side. There was a large tear in annulus; this was enlarged for removal of degenerated disc material. Later, the remnants of disc material were removed through the left side.

The patient made rapid recovery and was discharged in the second post -surgical day. Two weeks after surgery, he had made full recovery.



Figure 2a. Preoperative Sagittal T1-weight image of the lumbar spine revealing an isointense space occupying lesion located on posterior dural sac at L4-L5.

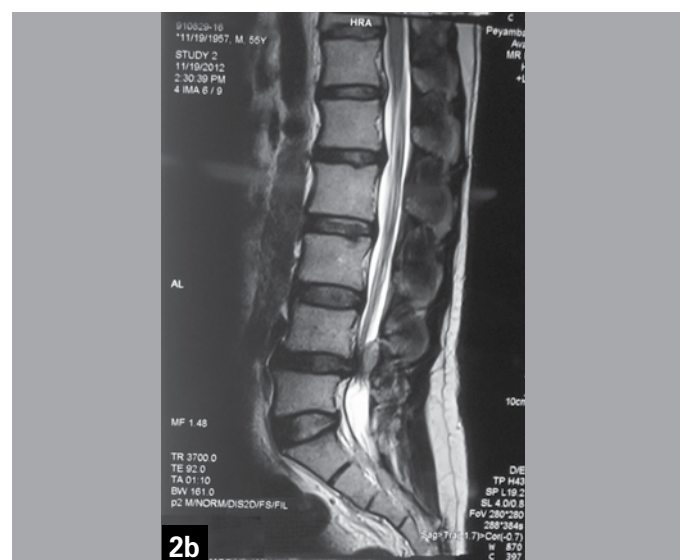


Figure 2b. Sagittal T2-weighted image showing the same mass with isointensity.



Figure 2c. Axial T2-weighted image obtained at the same level demonstrating right posterolateral location of the mass.



Figure 2d. Intraoperative view: showing an sequestered disc fragment with loose adhesions to the dura.

DISCUSSION

Posterior epidural migration of a lumbar disc (PEM) is an uncommon event and less than 50 cases have been reported in the literature¹⁻¹².

Posterior migration of a sequestered disc fragments is generally

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ERRATA

O artigo "Análisis comparativo de pacientes con estenosis degenerativa lumbar pura (EDLP) y estenosis secundaria a espondilolistesis degenerativa lumbar (ELDL) tratados quirúrgicamente en el período de 2008 a 2011 en el Hospital Metropolitano de Quito-Ecuador" publicado revista *Coluna/Columna*, na edição Volume 11, número 2, Abr/Jun 2012, pág.156-9, por solicitação do autor foi alterada a ordem dos autores. Onde se lê: Jaime Moyano¹, Edison Ahtty¹, Madelin Bilbao², Sebastián De la Torre³, o correto é: Sebastián De La Torre¹, Jaime Moyano², Edison Ahtty², Madelin Bilbao³.