Accepted Manuscript

Posterior epidural lumbar disc fragment mimicking epidural mass

Muhittin Emre Altunrende, MD, Mehmet Osman Akcakaya, MD

PII: S1529-9430(15)00614-2

DOI: 10.1016/j.spinee.2015.06.027

Reference: SPINEE 56374

To appear in: *The Spine Journal*

Received Date: 6 June 2015

Accepted Date: 12 June 2015

Please cite this article as: Altunrende ME, Akcakaya MO, Posterior epidural lumbar disc fragment mimicking epidural mass, *The Spine Journal* (2015), doi: 10.1016/j.spinee.2015.06.027.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Posterior epidural lumbar disc fragment mimicking epidural mass

Muhittin Emre Altunrende MD, Mehmet Osman Akcakaya MD

Department of Neurosurgery, GOP Taksim Training and Research Hospital, Istanbul/Turkey

Corresponding Author:

Mehmet Osman Akcakaya MD

GOP Taksim Egitim ve Arastırma Hastanesi, Norosirurji Klinigi

Karayollari Mah. Osman Bey Cad. No:120 Gaziosmanpasa/Istanbul 34433

E-mail: moakcakaya@gmail.com

Phone:00902129453000

Keywords: *sequestered disc migration, posterior epidural space, lumbar spine, epidural mass*

Running Head: *Altunrende&Akcakaya, Posterior epidural disc fragment*

ACCEPTED MANUSCRIPT

ACCEPTED MANUSCRIPT

Posterior epidural lumbar disc fragment mimicking epidural mass

Keywords: *sequestered disc migration, posterior epidural space, lumbar spine, epidural mass*

This 65-year old man presented with one-year history of low back pain and a new-onset radicular right leg pain. Neurological examination revealed no abnormalities except a positive straight leg raise test at 45 degrees. Magnetic resonance imaging (MRI) revealed an hypointense mass lesion at the L3-L4 level indenting the thecal sac circumferentially from the right posterolateral side on T2-weighted images. (Figure 1) Gadolinium-enhanced T1-weighted images showed rim-like peripheral contrast enhancement. (Figure 2) The lesion was considered as an epidural mass and surgery was planned. Through a L4 total laminectomy the mass lesion was exposed and the surgical view indicated that the 2 cm mass lesion was a posteriorly migrated disc fragment. (Figure 3) The sequestered disc fragment was followed downwards and it was clearly seen that the disc fragment was laterally compressing the L5 nerve root on the axilla.

To our knowledge, there have only been 55 reported cases of posterior epidural migration of lumbar disc fragments. [1,3] L3-L4 disc level is most commonly affected. [3] The rim-like peripheral contrast enhancement, due to highly vascularized epidural fatty tissue and inflammatory-vasogenic features of the sequestered disc fragment makes difficulties in an accurate diagnosis. [2] A minimal hemilaminotomy was reported to be sufficient for the removal of the sequestered disc fragment. [3] However, differential diagnosis may yield to larger exposures like in our case. Posteriorly migrated disc fragments should be kept in mind in the differential diagnosis of posteriorly located epidural lesions especially at L3-L4 level.

ACCEPTED MANUSCRIPT

References:

1. Akhaddar A, El-Asrı A, Boucetta M. Posterior epidural migration of a lumbar disc fragment: a series of 6 cases. J Neurosurg Spine 15 (2011) 117-124
2. Dösoglu M, Is M, Gezen F, Ziyal MI. Posterior epidural migration of a lumbar disc fragment causing cauda equina syndrome: Case report and review of the relevant literature. Eur Spine J 10 (2001) 348-351
3. Sengoz A, Kotil K, Tasdemiroglu E. Posterior epidural migration of herniated lumbar disc fragment. J Neurosurg Spine 14 (2011) 313-317

Figure Legends:

Figure 1: T2-weighted sagittal MRI showed a low intensity lesion compressing filum terminale within the thecal sac.

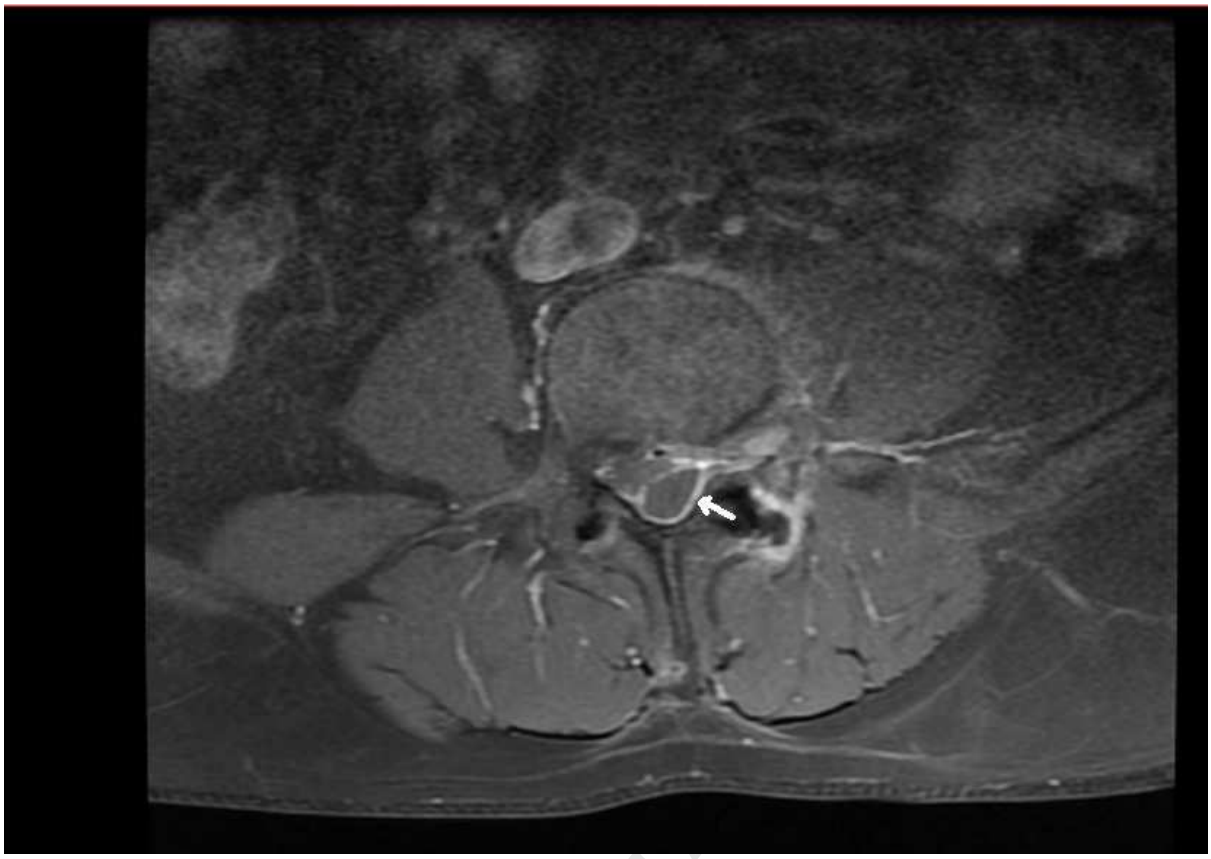
Figure 2a and 2b: Gadolinium-enhanced T1-weighted axial and sagittal MRI images demonstrated rim-like peripheral contrast enhancement.

Figure 3: Intaroperative view of the epidural 2 cm sized mass embedded in fibrous epidural tissue, seperated from the posterolateral aspect of the dural sac.

Disclosure: The authors report no conflict of interest concerning the materials or methods used in this study or the findings specified in this paper.

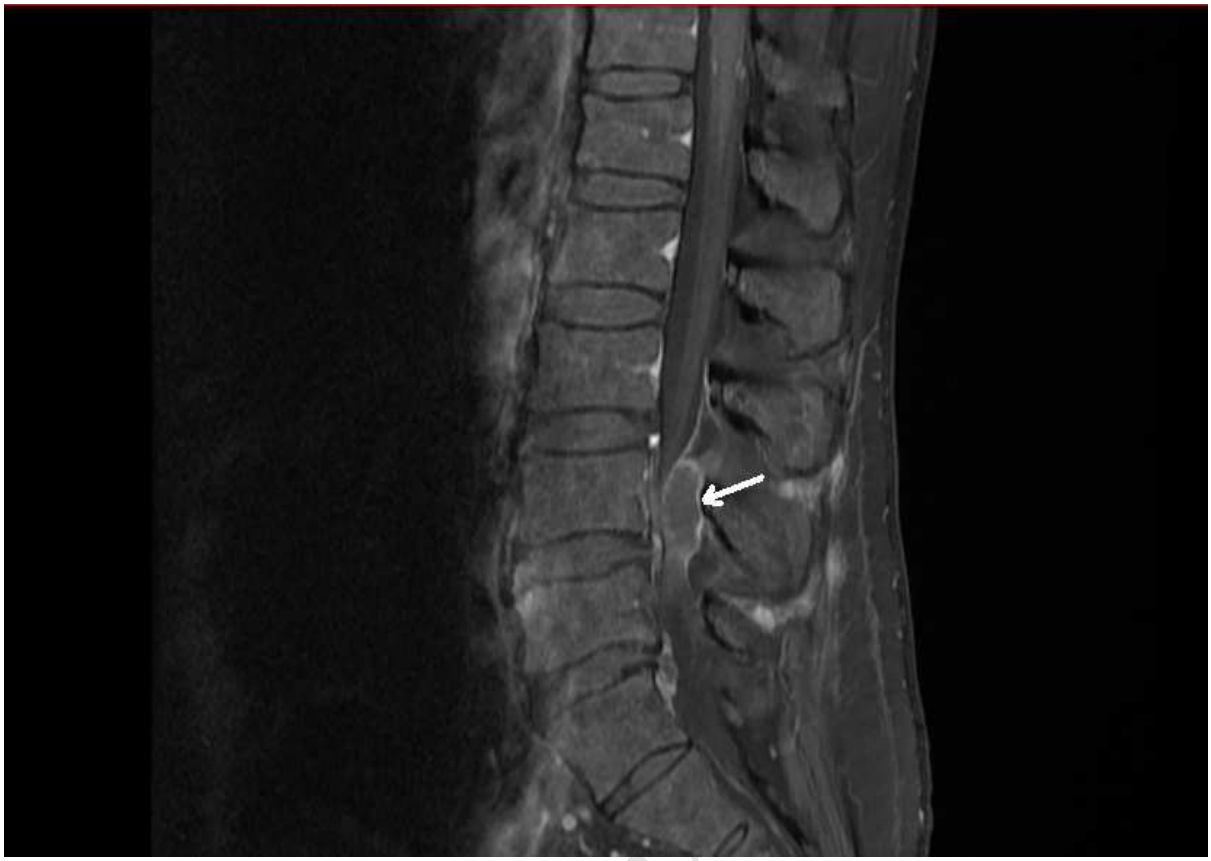
ACCEPTED MANUSCRIPT

ACCEPTED MANUSCRIPT



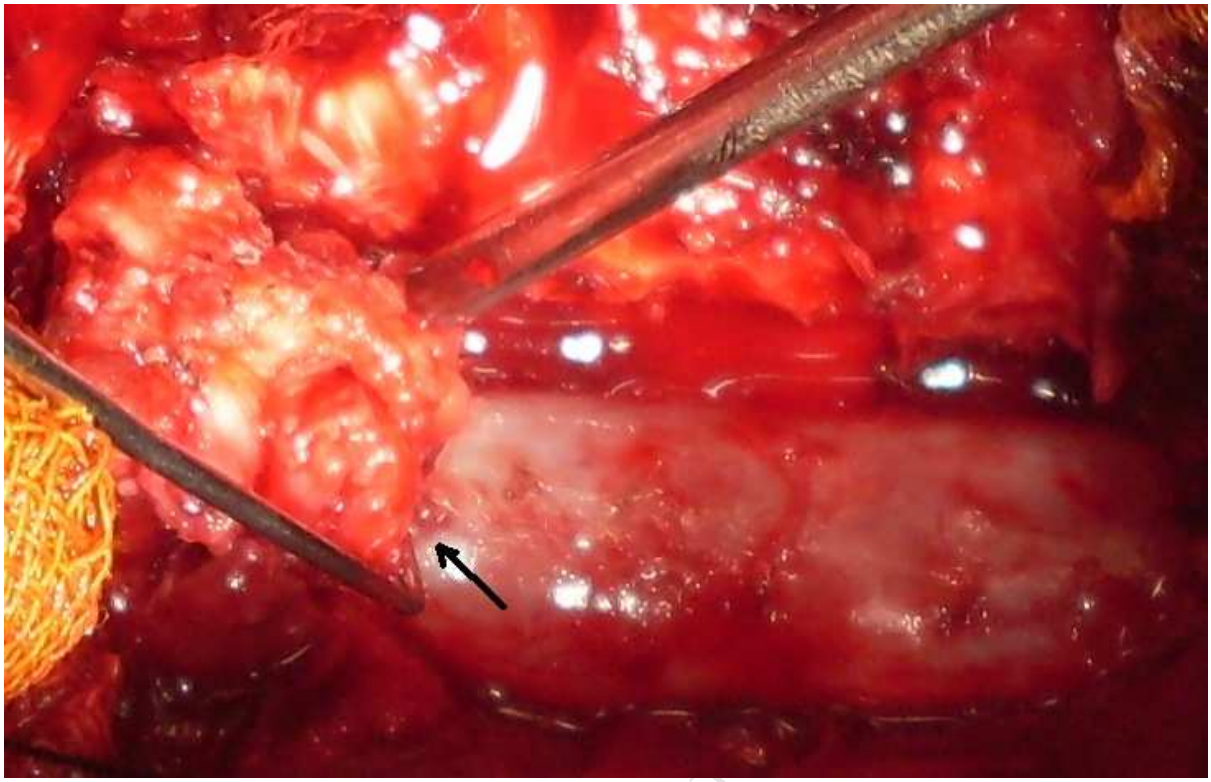
ACCEPTED MANUSCRIPT

ACCEPTED MANUSCRIPT



ACCEPTED MANUSCRIPT

ACCEPTED MANUSCRIPT



ACCEPTED MANUSCRIPT