



69

5

1

5

hematoma) (spontaneous epidural - 1 (extraforami-
20 199 가 nal disc herniation)
(1). (2). 가 5 가
(rupture of the (pedicle)
internal vertebral venous plexus) (facet joint) 가
(1). (Fig. 1). T2 5 - 1 ,
4.5 x 2.5 cm size (Fig. 2), T1
(3, 4). 5 , T1 T2
5 1 5 - 1 ,
(Figs.
3A, B). T1 5
(Fig. 4).
가
가
(heel gait) 5
. 2

1
2
3
4

2005 6 21

2005 7 22



Fig. 1. A 69-year-old male with back pain and left radiculopathy. The CT scan demonstrated severe degenerative change of left L5-S1 facet joint and a high attenuated left epidural lesion with erosive destruction of posterior L5 vertebral body and medial aspect of Lt. pedicle.



Fig. 2. Sagittal T2- weighted MR image demonstrated a left epidural mass-like lesion at the L5 body level, with inhomogeneous low signal intensity.

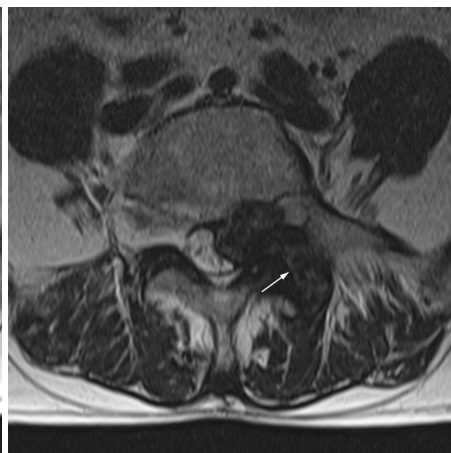
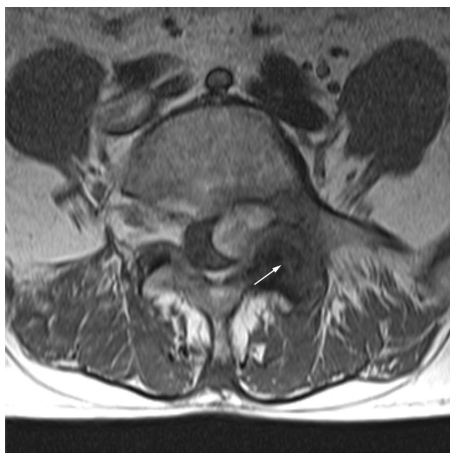


Fig. 3. Axial T1- weighted MR image showed a left epidural high intensity lesion at the L5 body level. Axial T1 - (A) and T2- weighted MR image (B) showed a severe degenerative change and dark hypointense lesion at the left L5-S1 facet joint potentially due to deposition of hemosiderin. The same signal intensity of epidural lesion was observed at the Lt. L5-S1 facet joint space (white arrow).

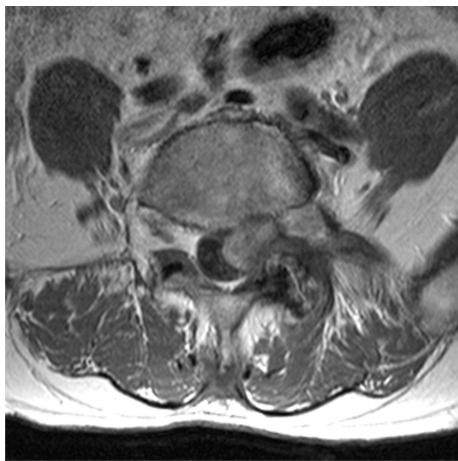


Fig. 4. Post-contrast T1 axial image showed a partial enhanced left L5-S1 facet joint, but with no definitely enhanced left epidural lesion at the L5 body level.



Fig. 5. There is no definite evidence showing direct connection between left extraforaminal disc herniation (arrow heads) and left epidural lesion on axial T2- weighted MR image.

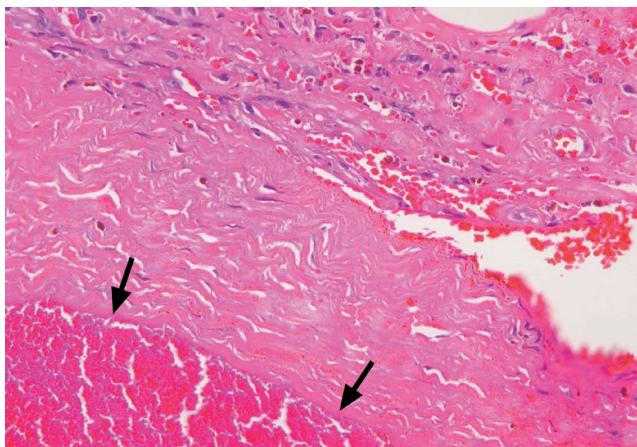


Fig. 6. Pathologic finding (Hematoxyline and eosin, $\times 400$) revealed epidural hemorrhage (arrows) without synovial lining and hyperplasia of the synovium with an increased number of capillary vessels at the left L5-S1 facet joint.

(Valsalva maneuver)

(6).

. Kaneko

(3).

Hirakawa

culopathy),

(intermittent claudication)

(radio -

가

(4).

Nishida

4 - 5

(10).

(7).

. Wilson (8)

가

, Fritz

(9)

가

angiogenic factors

가 가

가

deoxyHb

T2

(4)

T1

oxyhemoglobin (Hb)

, 24

deoxyHb metHb
T1 가 가 , metHb
T2 가 가 .
T1 T2 .
T1
.
가
.
,
가
.

1. Rob JMG, Hans P. The spontaneous spinal epidural hematoma. *J Neurol Sci* 1990;91:121-138

2. Sklar, EML, Donovan Post, JM, Falcone S. MRI of Acute Spinal Epidural Hematomas. *J Comput Assist Tomogr* 1999;23:238-243
3. Kaneko K, Inoue Y. Haemorrhagic lumbar synofial cyst. *J Bone Joint Surg Br* 2000;82:583-584
4. Hirakawa K, Hanakita J, Suwa H, Matsuoka N, Oda M, Muro H, et al. A post-traumatic ligamentum flavum progressive haematoma. *Spine* 2000;25:1182-1184
5. Holtas S, Heiling M, Lonntoft M. Spontaneous spinal epidural hematoma. Findings at MR imaging and clinical correlation. *Radiology* 1996;199:409-413
6. Fukui MB, Swarnkar AS, Williams RL, Acute spontaneous spiral epidural hematomas. *AJNR Am J Neuroradiol* 1999;20:1365- 1372
7. Nishida K, Iguchi T, Kurihara A, Doita M, Kasahara K, Yoshiya S. Symptomatic hematoma of lumbar facet joint: joint apoplexy of the spine? *Spine* 2003;28:E206-208
8. Wilson JN. Spontaneous heamarthrosis in osteoarthritis of knee: a report of five cases. *BMJ* 1959;23:1327-1328
9. Fritz P, Klein C, Mischlinski A, Hage C, Dittel KK, Laschner W. Morphometric analysis of the angioarchitecture of the synovial membrane in rheumatoid arthritis and osteoarthritis. *Zentralbl Pathol* 1992;138:128-135
10. Watanabe N, Ogura T, Kimori K, Hase H, Hirasawa Y. Epidural hematoma of the lumbar spine, simulating extruded lumbar disk herniation: clinical, discographic, and enhanced magnetic resonance imaging features. A case report. *Spine* 1997;22:105-109

Spontaneous Epidural Hematoma at the Lumbar Facet Joint: A Case Report¹

Seung-Eun Chung, M.D., Sang-Ho Lee, M.D.², Tae-Hong Kim, M.D.³,
Byung-June Jo, M.D., Deug-Hee Yoon, M.D., Sung-Suk Paeng, M.D.⁴

¹Department of Diagnostic Radiology, Wooridul Spine Hospital

²Department of Neurosurgery, Wooridul Spine Hospital

³Department of Neurosurgery, Sanggyepaik Hospital Inje University College of Medicine

⁴Department of Pathology, Wooridul Spine Hospital

Spontaneous epidural hematomas (SEHs) of the lumbar spine are rare. The pathogenesis is not entirely clear, but several reports have suggested that bleeding originating in the venous epidural plexus is the cause. This is the second report of a SEH thought to be the result of facet joint hemorrhage with no previous synovial cyst formation. A magnetic resonance image revealed a mass beginning in the left epidural space and continuing through to the left L5-S1 facet joint. Surgically, the epidural hematoma, which was covered by a very thin translucent membrane, was visualized directly. A histopathological examination revealed the wall of the epidural hematoma to be composed of very thin fibrous connective tissue with no synovium lining. The purpose of this study was to report a case of an epidural hematoma originated from lumbar facet joint, diagnosed by radiological examination, and to present a review of the subject literature.

Index words : Epidural hematoma
Facet joint, MR

Address reprint requests to : Seung-Eun Chung, M.D., Department of Diagnostic Radiology, Wooridul Spine Hospital,
47-7 Chungdam-dong, Gangnam-gu, Seoul 135-100, Korea.
Tel. 82-2-513-8197 Fax. 82-2-513-8175 E-mail: eunrad@dreamwiz.com