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. 1

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,

3,8,16)

15),

10%

가

⁵⁾

가 ¹⁾

:

146-92

Tel : 02) 3497-3514, Fax : 02) 3462-5472, E-mail : yooncs58@yumc.yonsei.ac.kr

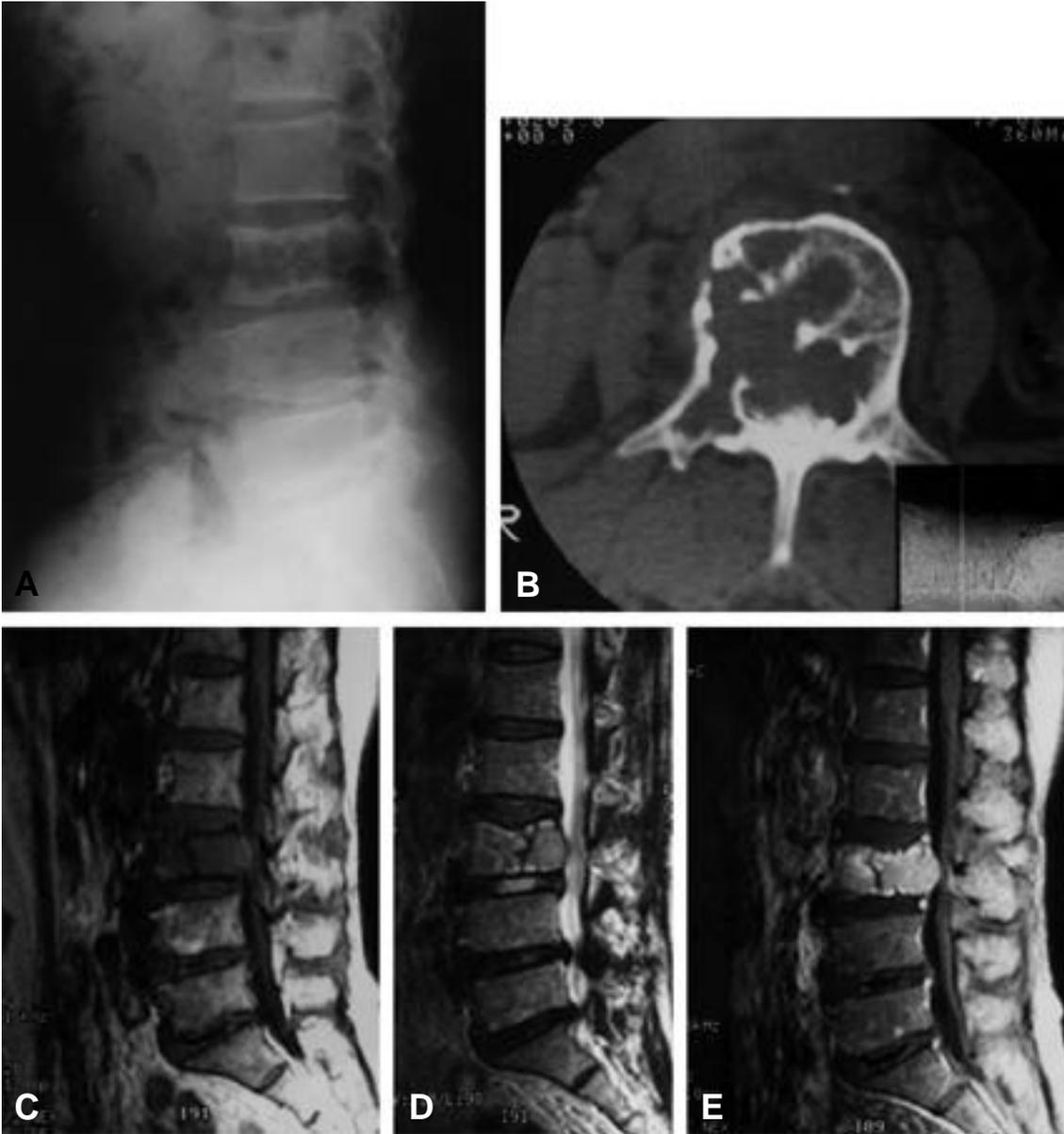


Fig. 1. A 32-years-old man with solitary plasmacytoma of 3rd lumbar vertebral body.

- A.** Plain radiograph of lumbar spine shows osteolytic bone destruction with compression deformity of 3rd lumbar vertebral body.
- B.** Precontrast CT shows lobulated bone destruction with soft-tissue density. The extensions of the lesion to surrounding soft-tissue and spinal canal are also noted. Multiple trabeculated bone densities within the lesion are seen suggesting residual normal bones.
- C-E.** Sagittal MRI of 3rd lumbar spine shows slightly increased signal intensity on T1-weighted image (C) and intermediate(not high) signal intensity on T2-weighted image (D) with compression deformity and protrusion into spinal canal. Linear signal void appearances of 3rd lumbar vertebra are represented trabeculated normal residual bones. Enhanced T1-weighted image (E) shows diffuse enhancement of the lesion.

5 , , ,
1 .

2

32 56 43.6 .

(5), 5 4
(3), (5)가 . (sclerotic rim)
(Fig. 1-A, 2-A) 1
(osteosclerotic lesion)
2

Table 1

1

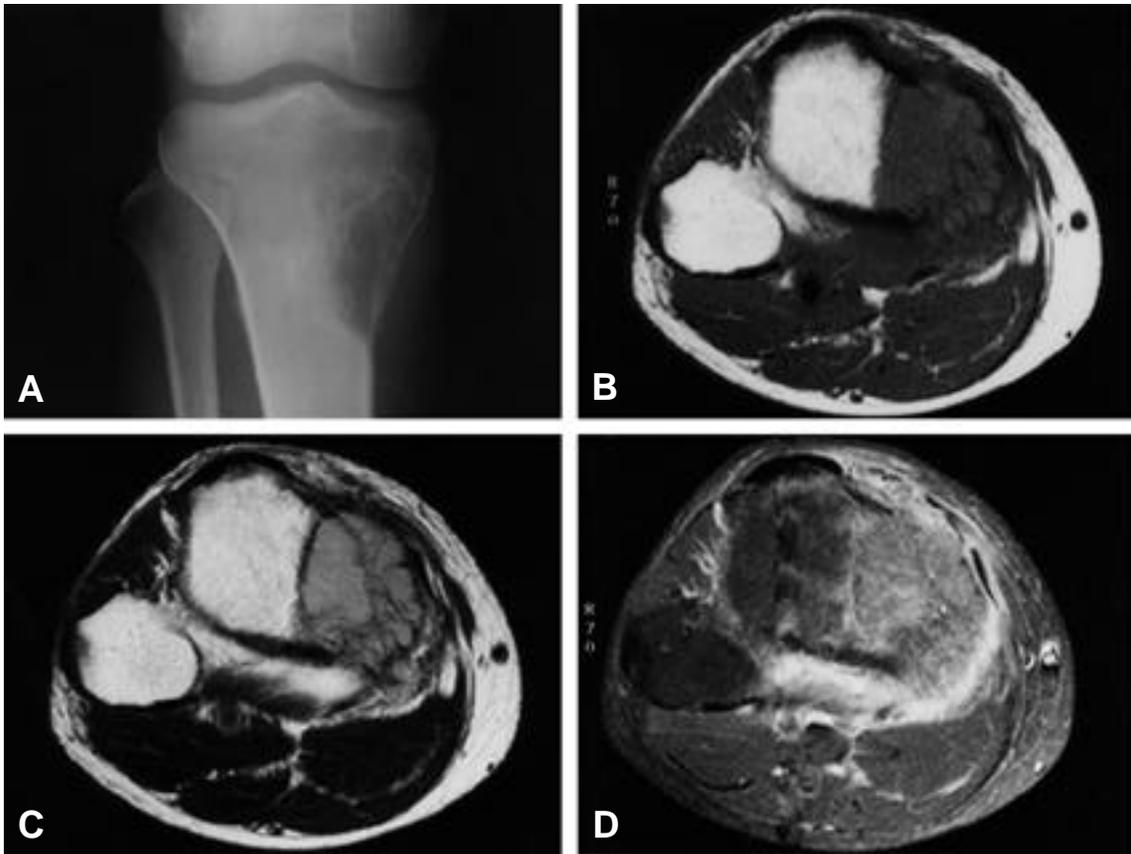


Fig. 2. A 42-years-old male with solitary plasmacytoma of left proximal tibia
A. Plain radiograph shows geographic pattern of osteolytic bone destruction without sclerotic rim in the metaepiphysis of left proximal tibia. Soft-tissue swelling is also noted at medial aspect of left proximal tibia.
B-D. Axial MRI shows destructive bony lesion with slightly increased signal intensity on T1-weighted image (B) and intermediate signal intensity on T2-weighted image (C). Trabeculated appearances within the lesion are noted with low signal intensities, which are more prominent on T2-weighted image. Soft-tissue extension of the lesion is also noted. Enhanced T1-weighted image (D) shows diffuse enhancement.

. 3

5%
가

가

7).

가

(Fig. 1-B).

가
3:1

40 ~ 60 ¹⁸⁾.

가

. 5
1/3
가

70%

7

가

7).

43.6

가

5

. 5

4

T1

, T2

4

(Fig. 1-C, D, 2-B, C)

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T1

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T2

. Gadolinium-DTPA

T1

1)

, 2)

4

, 3)

(Fig. 1-E, 2-D),

10%

1

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(anaplastic plasmacytoma)

5,11),

1,4,9)

9)

16),

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5,20)

가

9).

8).

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가 . 13) ,

(trabeculation) (soap-bubbly) . Dimopoulos 7)

Bataille Sany²⁾ 1981

114

47 4% 2

(2/47)

1 , 1

45 (45/47, 96%)

15 가 (Pseudo-giant cell tumor)

19)

가

5 4 (80%)

가

1

21)

2

Murray 14)

19)

10)

가

17)

2

가

(trabeculated

가

pattern)

9 2

18)

가

가

가

T2

T1

가

T1- T2

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Abstract

Solitary Plasmacytoma of the Bone: Radiologic Findings

**Choon-Sik Yoon, M.D., Myung-Joon Kim, M.D., Chang-Soo Ahn, M.D.*,
Jin Suck Suh, M.D., Kyoo-Ho Shin, M.D.****

*Department of Diagnostic Radiology and Orthopaedics**, Yonsei University College of Medicine
Research Institute of Radiological Science, Yonsei University
Department of Diagnostic Radiology, Pundang CHA Hospital,
College of Medicine Pochon CHA University**

Purpose : We examined the patients to evaluate the radiologic findings of solitary plasmacytoma of the bone.

Materials and Methods : We retrospectively reviewed radiologic findings of 9 cases with solitary plasmacytoma of the bone (SPB) for recent 5 years, but 2 cases were not included this study due to an abnormal finding of bone marrow and another 2 cases were not included due to an abnormal manifestations of computed tomography (n=1) and MRI (n=1).

Results : Among 5 cases, 4 cases had an osteolytic bone destruction and 1 case had an osteosclerotic bone destruction on the plain radiograph. Computed tomography and MRI showed more informations about trabeculated bone destruction and the soft-tissue extension of the lesion comparing to plain radiographs. The MRI finding of SPB in 4 cases showed a relatively high signal intensity on T1-weighted image and intermediate signal intensity on T2-weighted image, on which the signal intensity of the lesion is slightly higher than that of the muscle. One case had an extensive soft-tissue involvement and multiple necrosis, which presented iso to low signal intensity on T1-weighted image and high heterogeneous signal intensity on T2-weighted image. The Gadolinium-enhanced T1-weighted images of 5 cases showed diffusely strong enhancement of the lesion except on the necrosis areas.

Conclusion : Computed tomography and MRI may present some characteristics of SPB and demonstrate another foci of plasma cell infiltrates, so these can be helpful for the diagnosis and treatment of SPB.

Key Words : Plasmacytoma, Roentgenogram, Computed tomography, MRI

Address reprint requests to

Research Institute of Radiological Science, Yonsei University

#142-96 Togok-dong, Kangnam-gu, Seoul, 135-270, Korea

Tel : 82-2-3497-3514, Fax : 82-2-3462-5472, E-mail : yooncs58@yumc.yonsei.ac.kr