

## Insufficiency Fracture of the Sacrum - A Case Report -

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### - Abstract -

Sacral insufficiency fractures are unexpected causes of inguinal, lower back and buttock pain in elderly women with osteoporosis who have sustained unknown or only minimal trauma. Differential and radiological diagnoses of these fractures are often difficult. Bone scan remains the standard diagnostic tool, but computed tomography or magnetic resonance image may be required to differentiate insufficiency fracture from other diseases such as malignant bone lesion. The fracture usually extends vertically in the sacral ala, parallel to the sacroiliac joints. This distribution suggests that such fractures could be partially caused by weight-bearing transmitted through the spine. We report the treatment of insufficiency sacral fracture in one osteopenic patient who has been confirmed by computed tomography and treated with conservative method that convinced by follow up computed tomography.

**Key Words** : Insufficiency Fracture, Sacrum, Computed Tomography, Conservative Method

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3 (T score: -3.36)  
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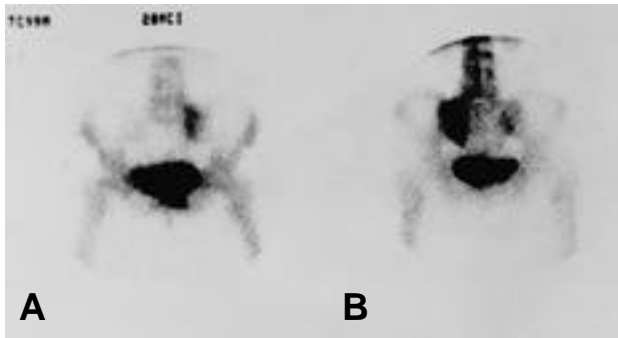
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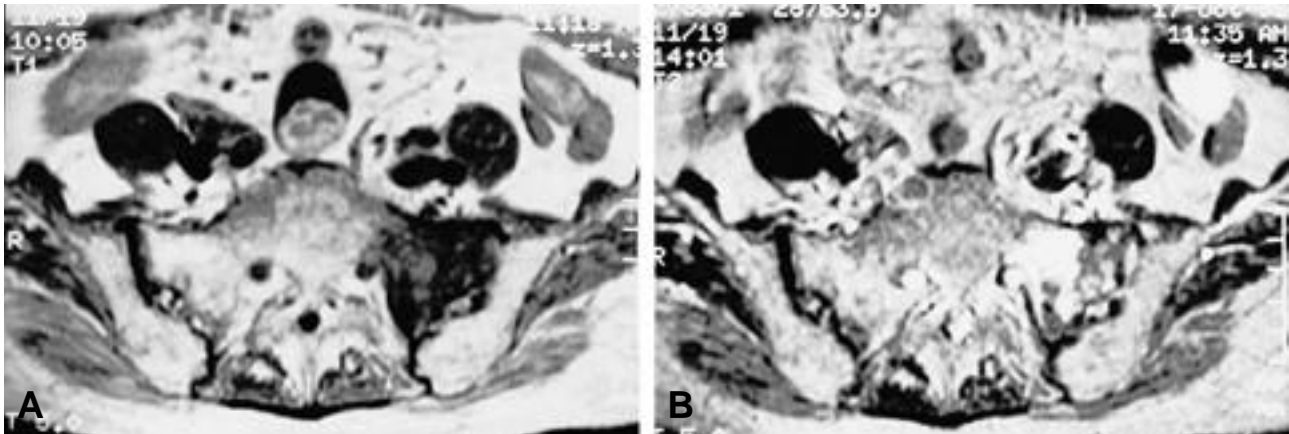
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**Fig. 1.** Anteroposterior pelvic radiograph showing sclerosis in the left ala is otherwise unremarkable.



**Fig. 2.** Technetium 99m bone scan revealing increased uptake in the left sacral ala.  
A. supine position, B. prone position



**Fig. 3.** T1 and T2-weighted axial images of the sacrum, demonstrating a lesion in the left sacral ala which shows low signal intensity on the T1 image (A) and high signal intensity on the T2 image (B).



**Fig. 4.** Computed tomographic section of the sacrum, demonstrating the left alar fracture parallel to the sacroiliac joint and broad band of sclerosis.

(Fig. 1).

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T1-weighted image

(Fig. 2),

T2-weighted image

(Fig. 3).

(Fig. 4).

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(Fig. 5).



**Fig. 5.** 7 months follow-up computed tomography scan confirms a healing left sacral ala fracture.

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3)  
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2)  
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4,8)  
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(stress fracture)  
(endurance limit)  
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(fatigue fracture)  
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(insufficiency fracture)  
4,9)  
가  
5,10)  
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calcitonin  
7)  
5,7,8)  
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CT MRI

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