



1

2 2 3

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 : 85 (70 , 15 ; 51-88 , 70 ) 148  
 , , , 가 MRI  
 CT , 1 , 2

: 24  
 , 9 48 , 1  
 가 1

50  
 26% (1).  
 50 가  
 15% , 5.4% 가 (2).

1999 6 2001 8 , ,  
 MRI (80 ) CT (5 )

, , 85  
 (3). polymethyl- 70 , 15  
 methacrylate (PMMA) , 51 -88 ( 70 ) . 85  
 . Galibert (4)

, 가 4 . 25  
 (5-9),  
 (10-17). 가 11 , 1-3 13 , 4-7 14 , 8 1  
 가 11 , 2 1 가 21 , 1 6 13  
 , 6 2 ( 38.2 ).  
 3 가 5 , 4-  
 7 11 , 8-14 19 , 2 1 가 34 , 1  
 6 가 14 , 6 2 (

1  
 2  
 3





1/4 - 2/4

T12

PMMA

1

가

가

가

2

(Fig. 4).

1

77

T11

4

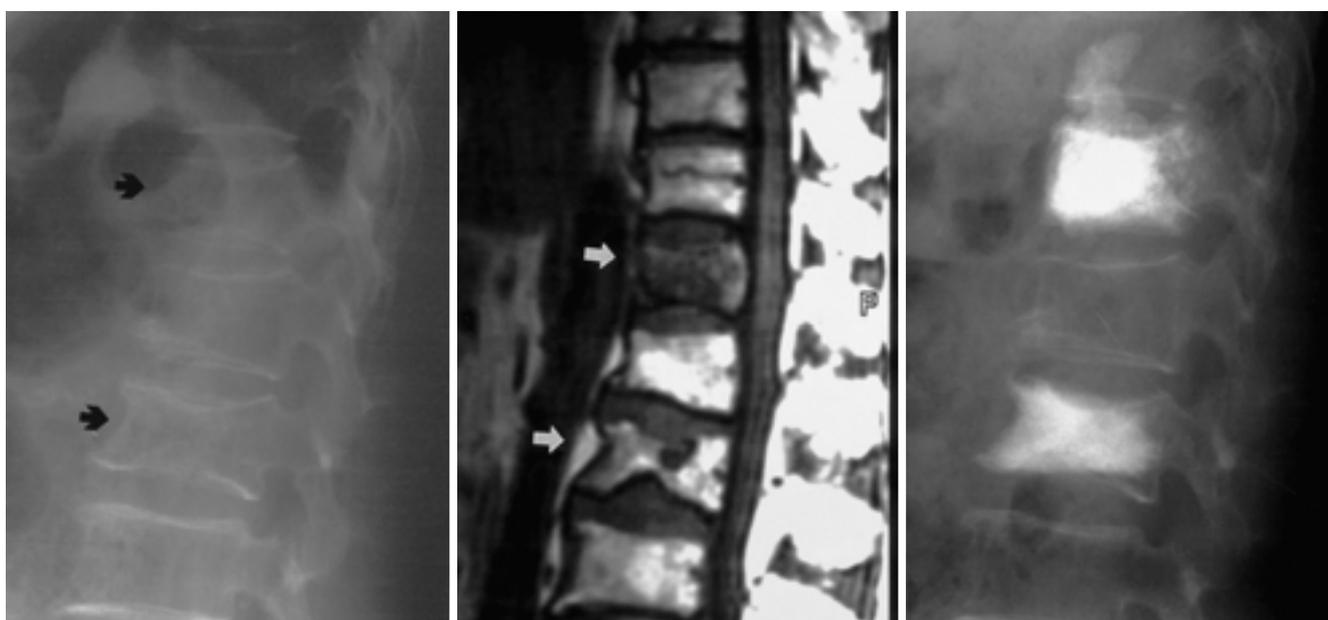
PMMA

11

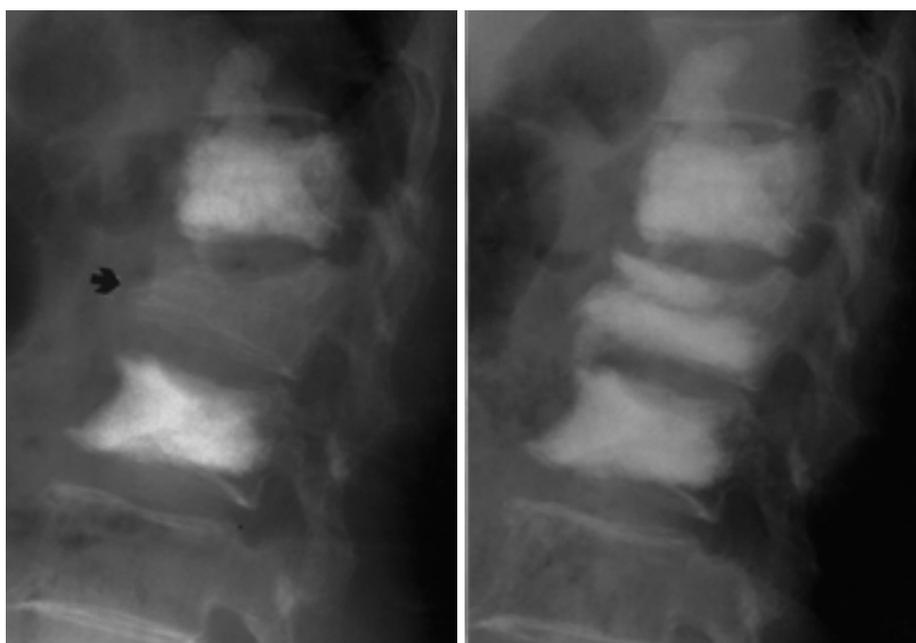
(Fig. 3).

가

2



**A** **B** **C**

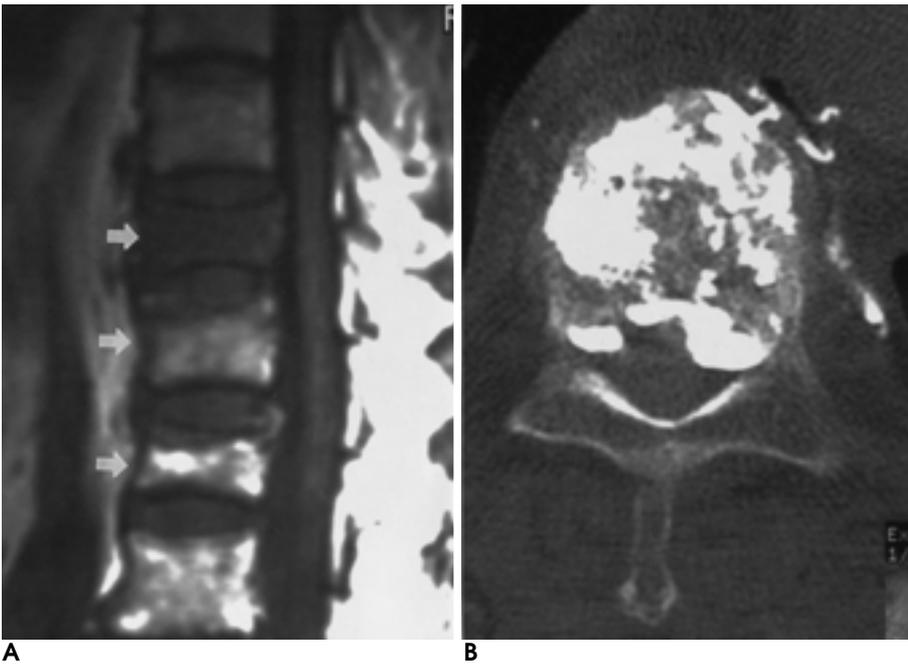


**D** **E**

**Fig. 4.** A 76-year-old woman with severe back pain from T12 and L2 compression fracture.

On admission plain radiograph **(A)** and T1-weighted MR image **(B)** show recent fracture of T12 and L2 body(arrows). After successful vertebroplasty for T12 and L2 **(C)** she was discharged with complete remission of pain after 3 days later.

Four months later, she experienced acute onset of severe back pain after excessive walking. The plain lateral radiograph **(D)** shows a new L1 fracture(arrow). Successful vertebroplasty was performed for L1 body **(E)** with restoration of vertebral height.



**Fig. 5.** A 69-year-old woman with multiple osteoporotic vertebral compression fractures.

T1 weighted sagittal MR image shows multiple fractures from T10 to T12 (A). She had thoracolumbar junction tenderness on admission. After vertebroplasty CT image shows epidural leakage of bone cement from T10 vertebra (B). She suffered from flank pain after procedure and was treated in pain clinic. She was discharged with partial remission of flank pain after 10 days later.

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 1-20 ( 4.5)  
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(Fig. 5).  
PMMA  
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PMMA가 가  
(Fig. 3).  
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가 , 6)  
, 5)  
(25).  
가  
2.27  
가 1.44  
60%  
(26). 85 7  
2  
가

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## Percutaneous Vertebroplasty for the Treatment of Osteoporotic Vertebral Compression Fractures<sup>1</sup>

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**Purpose:** To assess the usefulness of percutaneous vertebroplasty for the treatment of painful osteoporotic vertebral compression fractures.

**Materials and Methods:** Eighty five patients [70 women and 15 men aged 51 - 88 (mean, 70) years with 148 vertebral compression fractures underwent percutaneous vertebroplasty. The causes of fracture were slip, lifting, fall, traffic accident, walking, and other unknown causes; the duration of pain varied from three days to two years. All patients underwent MRI or CT to assess the recent condition of the fracture, and vertebroplasty was performed under DSA fluoroscopic guidance. Routine clinical follow-up examination involved visual analogue pain-scale testing one and two days after vertebroplasty; the results obtained were compared with those of pre-operative assessment. The outcome of vertebroplasty was assessed in terms of its efficacy and resulting complications, if any.

**Results:** The procedures were technically successful in all patients. In 73, back pain was relieved within 24 hours; in nine, within 48 hours and in one, within seven days. In two patients, pain relief was insignificant, and one of these died.

**Conclusion:** Percutaneous vertebroplasty was a useful procedure for treating painful osteoporotic compression fractures.

**Index words :** Spine, interventional procedures  
Spine, fractures  
Osteoporosis

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