



15, 2, 2002 4

The Journal of the Korean Society of Fractures
Vol.15, No.2, April, 2002

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, *

< >

:

가

가

: 2000 1 2001 4
59, 111

66.0 (45 85)

가 10, 49

trocar가

(barium)

trochar

1/3

11, 12

1, 2

가 81

가 26
4.7ml

가 20, 3
1, 2, 2

10, 4

2, 7

1

:

2 48

2 3

2 4
20, 24, 10

4
5
70.3%

75%
가가

($p < 0.02$).

9

가 5

1

13

가

가

. 4

:

;

:

415

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*

2001

Galibert, Deramond	1987	1	11	14	12	26	1	23
		2	18	3	18	4	7	5
						11	-2	가
							1	26
			2	20	3		10	4
				3			5ml	가
		1,2,3	51	5ml			가	60
				4.7ml				
가				가	64	47		
			가					가 2
가			2	2				
							가	
			(Excellent),	(Good),	(Fair),	(Poor)		
								2

student T test

2000	1	2001	4
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59 ,

111

가 49 가 10 , (stooping) 11 ,

66.0 (45 - 85) 7 12

7 , 15 , 37

(Bone scan) 48 1-2 ,

3 2 , 4 2

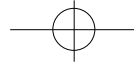
4

T-score -3.64(-1.4 -6.0) 가 20 , 가 24 ,

10 5 44 (75%)

trocar

1/3 (stooping) 11



7
7
5
55.5% 2 70.3% 14.8% 가
가
가 13 ,
가 9 , 가 5
, 1
가
4
가
1
가
Mathis PMMA
가
Mathis 7 3
59 48 2
가
가
가 5ml 가 5l 5ml
가 60
5ml

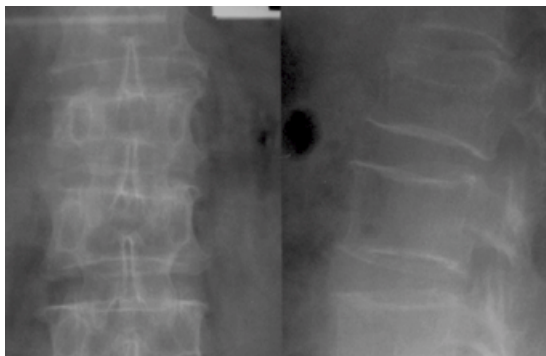


Fig. 1. Compression fracture, 2nd & 3rd lumbar vertebrae (preoperative)

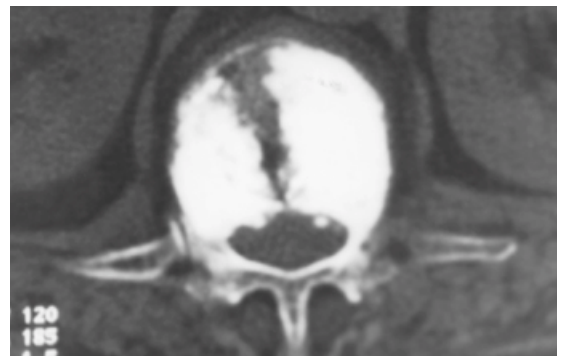


Fig. 3. Postoperative CT

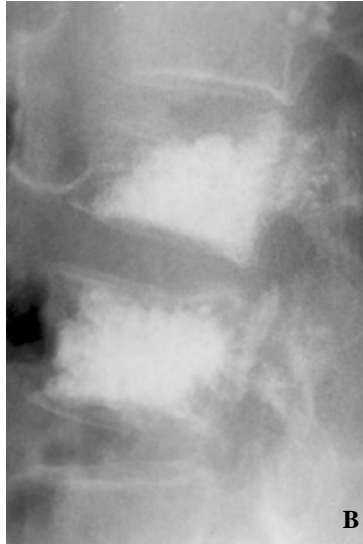
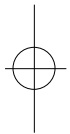


Fig. 2.
Postoperative simple X-ray
(bipedicular cement injection)

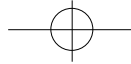


가 가 trochar (stooping) 가 가
가 trochar
10% 9 4%, 1-
PMMA
PMMA 가
PMMA
Tohmeh 가 , ,
가 가 3,10 PMMA
(stiffness) 가
47 , 64 , 9,10
PMMA
가 가 1
bone mineral
cement, osteoconductive material, osteoinductive growth
factor 11.



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Abstract

Vertebroplasty on osteoporotic compression fracture

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Purpose : Percutaneous vertebroplasty is the procedure of bone cement injection and allogeneous bone graft for pain relief in case of compression fracture, hemangioma etc. Recently, osteoporotic compression fracture increases as the old age increase. We analyzed the postoperative clinical symptoms and radiologic findings.

Materials and Methods : From Jan. 2000 to Apr. 2001, we have analyzed 111 osteoporotic compression fractures(59 patients) at Kangneung hospital. Before the procedure, we checked BMD, bone scan and CT. Most common fracture site was the thoracolumbar junction area. Fluoroscopic control was necessary for the cement injection to prevent cement leakage. The amount of cement injection was 4.7ml. We have studied the increase of vertebral body height, symptom recovery time & pain relief, postoperative complications.

Result : The vertebral body height was increased from 55.5% to 70.3% postoperatively and the symptom was improved in 48 persons at POD 1, 3 persons at postoperative 2 weeks, and 4 persons at postoperative 2 months. Most common complication was cement leakage to the epidural vessel, disc space, and spinal canal. But serious complication-spinal canal leakage- was only 1 case and had been improved after decompression.

Conclusion : Percutaneous vertebroplasty with bone cement(PMMA) is effective treatment in osteoporotic compression fracture, especially in pain relief.

Key words : compression fracture, osteoporosis, bone cement, percutaneous vertebroplasty,

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