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: 1996 2 2001 2
6 가 가 79 12

Evans, Singh, ; modified
test chi square

: (p>0.05).
(p<0.05).

5 mm

(p>0.05).

: , Singh

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5 mm

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Table 1. Relationship of Age and Sex

Age	No. of patient			Loss of fixation		
	Male	Famale	Total	Male	Famale	Total
<60	3	2	5 (6.3%)	0	0	0
60~70	15	23	38 (48.1%)	2	3	5 (41.7%)
70~80	13	16	29 (36.7%)	3	4	7 (58.3%)
>80	3	4	7 (8.9%)	0	0	0
Total	34 (43%)	45 (57%)	79	5 (41.7%)	7 (58.3%)	12

Table 2. Relationship of Singh index

Singh index	No. of patient	Loss of fixation	Classified by grade	
I	0	0		
II	7	2 (16.7%)	I-III	4 (33.3%)
III	18	2 (16.7%)		
IV	21	4 (33.3%)		
V	18	3 (25.0%)	IV-VI	8 (66.7%)
VI	15	1 (8.3%)		
Total	79	12	12	

Table 3. Relationship of fracture type (Modified Evans classification by Jensen)

Fracture type	No. of patient	Loss of fixation	Classified by stability	
I	12	0	Stable fx. (I, II)	2 (16.7%)
II	16	2		
III	23	2	Unstalbe fx. (III, IV, V)	10 (83.3%)
IV	22	5		
V	6	3		
Total	79	12	12	

3
54 8 (14.8%)
, 25 4 (16%)
(p>0.05) (Table 3).

4.
Cleveland
, , ,
9
. 가

가 (p<0.05) (Table 3).

Table 4. Placement of screw in femoral head

Superior				
Anterior	2 (1)	7 (2)	3 (2)	Posterior
	5 (1)	45 (2)	7 (2)	
	3 (1)	7 (0)	2 (1)	
Inferior				

(): No. of loss of fixation

Table 5. Frequency of cutting-out related to quality of reduction (excluding 2 part fracture)

Reduction quality	No. of patient	Cutting-out
Displacement on AP radiograph		
< 5 mm	52	5/52 (9.6%)
> 5 mm	27	7/27 (25.9%)
Total	79	12/79
Displacement on Lat. radiograph		
< 5 mm	32	5 (15.6%)
> 5 mm	47	7 (10.7%)
Total	79	12/79

5.
가
5 mm 가
18.2% 11.7% 가
(p>0.05) (Table 4).
5 mm 가 9.6%
5 mm 가
25.9%
(p<0.05) (Table 5).

가 15% 20% 1). 가 .

가 가 3,7,18) .

가 , 가 6,10,11) .

가 , 가 6,21) .

5 mm 가 가 Davis 16) .

가 10 가 가 .

가 Davis 6) .

가 Laros Moore¹⁵⁾ .

가 5 mm 가 20) .

가 , Kaufer 12) bone absorptiometry Singh index .

가 1996 2 2001 2 5 79 .

가 Dimon⁸⁾ Laros Moore 15) .

가 Jensen type 3 , 4 , 5 1 2 가 가 , .

가 Martyn¹⁷⁾ Davis⁶⁾ , 가 , Kyle¹³⁾ .

가 가

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Abstract

Loss of Fixation after Internal Fixation of Intertrochanteric Femoral Fracture with Compression Hip Screw

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Purpose: To evaluate the factors which might affect the loss of fixation after surgical treatment of intertrochanteric fracture with compression hip screw.

Materials and Methods: From February 1996 to February 2001, seventy nine cases of intertrochanteric fracture which we operated with compression hip screw was reviewed with minimal follow up for 6 months. There were twelve cases of loss of fixation. The cases were analyzed according to each factors which we thought to affect the loss of fixation. The factors are fracture type by modified Evans classification, Singh index, placement of screw in femoral head, quality of reduction. Then we analyzed these factors with chi square test.

Results: Difference between age group and sex were not thought to be statistically meaningful factors ($p>0.05$). There were difference of prevalence between two group divided by fracture stability ($p<0.05$). In cases of superior placement in femoral head, there were more loss of fixation. Displacement of cortex of proximal femur on radiologic AP view other than lateral view showed meaningful difference ($p<0.05$).

Conclusion: Age, sex, Singh index did not affect the loss of fixation. But, next factors as follows affected the loss of fixation; Superior placement of hip screw, unstable fracture pattern, displacement of fracture site more than 5 mm after surgical reduction on radiologic AP view.

Key Words: Intertrochanter, Fracture, Hip screw

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