



11, 3, 1998 7

The Journal of the Korean Society of Fractures  
Vol.11, No.3, July, 1998

= Abstract =

## A Clinical study of the Tibial Plateau Fracture

Hyung-Seok Kim, M.D., Ki-Do Hong, M.D.,  
Sung-Sik Ha, M.D. and Beom-Soo Kim, M.D.

*Department of Orthopaedic Surgery, Seoul Adventist Hospital, Seoul, Korea*

The tibial plateau fracture often produce some disabilities of the knee joint because it is the intraarticular fracture and often associated with soft tissue, ligament and meniscal injury. The authors analyzed 42 cases of the Tibial Plateau fractures, which were treated at the department of orthopaedic surgery, Seoul Adventist Hospital from 1992 to 1997, to know the relationship between the type of fracture, the methods of treatment, and the results.

The results were summerized as follows;

1. The most common fracture type by Schatzker classification was type I (18 case 42.9%).
2. Sixteen cases among of 42 cases were treated with conservative treatment, and 26 cases were treated with operative method.
3. The clinical result according to Blokker method, acceptable were 34 cases ( 81.0% ) and unacceptable were 8 cases (19.0%).
4. The complications were limitation of range of motion(4 case), peroneal nerve palsy(2 case), posttraumatic arthritis(1 case), wound infection(1 case).

**Key Words :** Tibia, Plateau Fracture

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Tel : 210 - 3477, Fax : 217 - 1897



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, 26 (61.9%), 6  
(14.3%) 5 (11.9%),  
Schatzker 6 5 (11.9%)  
가 (Table 1).

Table 1. Distribution of fracture site

	Medial Condyle	Lateral Condyle	Bicondyle	Total (%)
Rt.	4	14	4	22(52.4%)
Lt.	7	10	3	20(47.6%)
Total	11(26.2%)	24(57.1%)	7(16.7%)	42(100%)

4.

Schatzker21)

1 18 (42.9%),  
2 7 (16.7%),  
3 1 (2.3%), 4 6  
(14.3%), 5 5 (11.9%),  
6 5  
(11.9%) 1 가 (Table 2).

Table 2. Classification of fracture by Schatzker

Schatzker type	No. of patients
I. Pure cleavage	18
II. Cleavage with depression	7
III. Pure central depression	1
IV. Fracture of medial condyle	6
V. Bicondylar fracture	5
VI. Plateau fracture with dissociation of metaphysis and diaphysis	5
Total	42

1.  
42 27 , 15  
16 72  
40.8 30 40 가 24 57.1%

2.  
(24 , 57.1%)가  
(7 , 16.7%), (5 ,  
11.9%), (2 , 4.7%),  
(2 , 4.7%)

3.  
30 (71.4%) 12 (28.6%) 가  
33 18  
(19.0%)가 (Table 3).

Table 3. Associated soft tissue injury

	I	II	III	IV	V	VI	Total
LCL	3						3
MCL	1	1		1			3
Meniscus	1	3		2			6
MCL+Meniscus	2			1			3
ACL+MCL+Meniscus	1						1
ACL+LCL+Meniscus		1					1
Total	8	5		4			17

6.

42 16 (38.1%) , 26  
(61.9%) ,

. Schatzker 1



Fig 1-A. A 57-year-old female with Schatzker type 4 fracture associated with medial meniscus injury.  
B. Operated with 2 cancellous screws.  
C. The 12 months follow-up radiograph. The clinical result was acceptable.

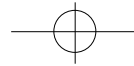


Fig 2-A. A 55-year-old female with Schatzker type 3 fracture.

B. Operated with buttress plate and bone graft

C. The 24 months follow-up radiograph. The clinical result was acceptable.

Table 4. Fracture type and method of treatment

	I	II	III	IV	V	VI	Total
Conservative	10		1	3	2		16
Operative							26
K-wire	2						2
Tibial bolt	2		1				3
Tibial bolt & wire							
Tibial bolt & screw		2			1		3
Cannulated screw	4	3		3			10
Cannulated screw & pin, wire					1		1
Plate & screw		1		3		1	5
Ext. fixator, Ilizarov					1	1	2
Bonegraft		4		1			5
Total	8	7		6	3	2	42

13 (Fig 1 A,B,C), 5

(Fig 2 A,B,C),

2

가

K-

(wire)

(Q-setting exercise)

4



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4 12 Tibial plateau fracture 5,9).

6 12 가

16 (Table 4). 가 가

가가 , 24 (57.1%)

가

Blokker<sup>6)</sup> 가 가

34 , 8 , 가

2 1 , 4 2 , 가

5 2 , 6 1 , 가

1 5 1 0.5cm

(Table 5). 8 (19.0%)

4 , 2 , 8,19).

1 , 1 가 (57.1%) 가 24

10 ° , 90 °

2 가

5 2 .

4 . Riebl Wade<sup>18)</sup> 50%

(Table 5). 15.7%, Blokker<sup>6)</sup>

9.4% , Wippula

Bakalim<sup>25)</sup> 11%

17

6 (14.3%), 6

(14.3%) ,

5 (11.9%) .

가

. Apley<sup>5)</sup>, Cotton Berg<sup>9)</sup>, Brown

Sprague <sup>7)</sup>

가

Blokker , Muller

Schatzker AO

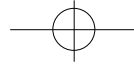
. 1825 Cooper가

Hohl Luchl<sup>3)</sup> 10mm

Bumper fracture, Fender fracture, 5mm

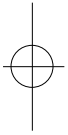
Table 5. The clinical result by Blokker method

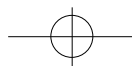
	Conservative treatment	Operative treatment	Total
Acceptable	14	20	34 (81.0%)
Unacceptable	2	6	8 (19.0%)



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가 Rombold<sup>20)</sup> 5mm 5mm 가  
 , 5 ° , , Hohl  
 Schulak Gunn<sup>22)</sup>  
 5mm , 10mm , , Seppo<sup>23)</sup>  
 5 ° , , 43%  
 . Rasmussen<sup>17)</sup> . Gausewitz<sup>11)</sup>  
 20 ° , Hohl 5  
 10 ° 12  
 5mm 가 가 4 가  
 , 가 2 6  
 가 가 2  
 가 .  
 .  
 Delamarter<sup>10)</sup>  
 , Blokker<sup>6)</sup> , Jacobson<sup>14)</sup>  
 가 , Porter<sup>16)</sup>  
 가 . Brown Rasmussen<sup>17)</sup>  
 Sprague 2 10 가 ,  
 . Hohl 10  
 6 , , 가  
 . Rombold 2 가  
 Apley 12 , Blokker 가  
 6 , 12 가  
 Hohl 3-6 K  
 5 가  
 4 6 , 가  
 12 16 ,  
 4 12  
 . 2  
 (Q-setting exercise)  
 Rasmussen<sup>17)</sup> , 1992  
 , 1997 1 가 가 42  
 , .





1. Schatzker (42.9%) 가 1 18
2. Blokker 35 , 7  
2
- 6 .
3. 가 4 가
4. , , ,
5. , , ,
6. , , ,
7. , , ,
8. , , ,
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