



13, 4, 2000 10

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. . . .

&lt; &gt;

:

. ,

: 1989 5 1999 2

14

1

가 가

. Letournel

4

9

2

2

10

5, T

3

1

1

Matta "roof arc"

3

4

Harris hip score

( , roof arc, )

Harris hip score

Harris hip score

Harris hip score

:

:

roof arc

Harris hip

score

:

가

:

:

:

가

7).

10,16),

,

:

516,

(425-020 )

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\*

2000





가 가 5.

7,9,12). Letournel  
Letournel  
4 (28.5%) , 2 (14.3%),  
2 (14.3%) 10  
(71.4%) 5 (35.7%), T  
3 (21.4%), 1  
(7.1%), 1 (7.1%) .

6.

5 Kocher-Langenbeck  
extended ilio-femoral  
triradiating 3 .

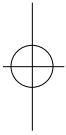
7.

1. 1989 5 1999 2  
1 가가 23  
14  
8 10  
2 4 .

2. 14 가 8 (57.1%), 가 6 (42.9%)  
21 63 40  
, 20 40 가 12 (85.7%)  
3.

가 11 가  
가 3 .  
9 (42.8%) 가 ,  
5 (23.8%), 4 (19.0%), 3  
(14.2%) .

4. 3 (21.4%),  
가 1 (7.1%)  
가 1 1 6  
Harris hip score  
가 90 , 80 89  
, 70 79 , 60 69  
가 3 , 가 5 4





2 . (p=0.003).

4. Harris hip score (p=0.02).

8. ( , roof arc, Harris hip score (p=0.18).

) SigmaStat 2.0 for Windows(Jandel Co., USA)

program Spearman Rank Correlation

6. roof arc Harris hip score

(p=0.02)

7. Roof arc

8. Harris Hip Score (p=0.82).

(p<0.05).

1. (p=0.67).

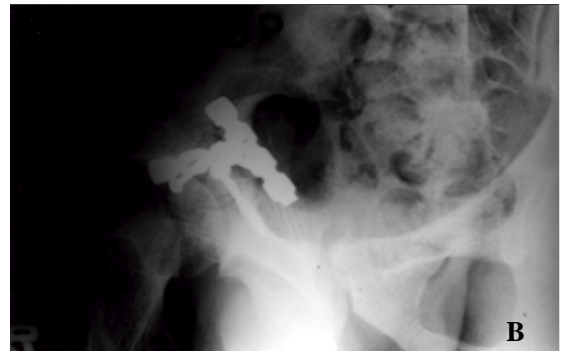
2. Harris hip score (p=0.26).

3.

1. OOM25

25 가 가

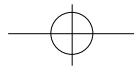
T- (Figure 1-A, roof arc 30°). extended ilio-femoral



**Fig 1A.** A 25 year old man with T-shaped acetabular fracture(Roof arc 30°)

**1B.** Immediate postoperative radiogram :  
Fracture was treated by open reduction and internal fixatiion(anatomical reconstruction plate and screw)

**1C.** At postoperative 8years and 10months, good radiologic and excellent clinical result was noted.



(Figure 1-B). 8 10  
 (Figure 1-C) Harris  
 Hip Score 96 .

2. 00F/27  
 27 T-  
 (Figure 2-A,. roof arc 26°). 가 10,11). ,

Canesale  
 5 6 , 가 .

(Figure 2-B,C)  
 Harris hip score 96 .

3. 00M/48  
 48  
 T- (Figure 3-A) roof arc 14° (obturator foramen view) 11) (iliac wing view)  
 triradiating CT 3D-CT

2mm 가 6). , 가

. 1 4 Harris Hip Score 72



**Fig 2A.** A 27 year old women with T-shaped acetabular fracture(Roof arc 26°)  
**2B.** Immediate postoperative radiogram.  
**2C.** At postoperative 5years and 6 months, joint space was well preserved and clinical result was excellent.



**Fig 3A.** A 48 year old man with T-shaped acetabular fracture(Roof arc 14°)

**3B.** Immediate postoperative radiogram :  
Displacement over 2mm was noted.

**3C.** At postoperative 1year and 4 months,  
significant arthritic change was noted and  
clinical result was fair.

CT 3D-CT

Harris Hip Score

. Letournel 가

가 ,  
가 ,  
가 가

. Matta <sup>15)</sup>

18).

2,9)

. roof arc<sup>17)</sup>

. roof arc

가

(p=0.18) Harris hip score

(p=0.02). roof arc 가

Letourne<sup>113)</sup> (1980)

5 (35.7%)가

가

가 Harris hip score

Letournel <sup>13)</sup>

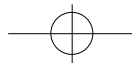
가

가

Letournel

2 4

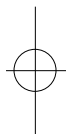
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**Table 1.** List of Patients

Case	S/A	Type of Fracture	Roof arc	Reduction	Final X-ray	+HHS
1	M/34	Transverse & ++PW	38 °	Grade I	minimal arthritic change	76
2	M/25	T-shape	30 °	Grade I	normal joint space	96
3	F/27	T-shape	26 °	Grade I	normal joint space	96
4	F/41	Transverse	60 °	Grade II	minimal arthritic change	80
5	F/35	Transverse & ++PW	36 °	Grade II	minimal arthritic change	86
6	M/63	post.column	47 °	Grade II	minimal arthritic change	84
7	M/46	Transverse & ++PW	15 °	Grade II	normal joint space	87
8	F/56	post.column & wall	62 °	Grade III	destroyed joint	61
9	M/48	T-shape	14 °	Grade III	significant arthritis	72
10	M/28	Transverse	36 °	Grade III	minimal arthritic change	74
11	F/21	both column	43 °	Grade III	minimal arthritic change	74
12	F/38	posterior column	46 °	Grade I	normal joint space	94
13	M/36	Transverse & ++PW	15 °	Grade III	significant arthritis	62
14	M/42	Transverse & ++PW	45 °	Grade II	minamal arthritic change	81

+, Harris Hip Score

++, Posterior wall



( ) 1  
 가가 14 3  
 16),  
 21),  
 23), 가  
 3,21,22) 4 2 (50%)  
 23)  
 (p=0.003), Harris hip score  
 13,17), 가 (70 - 79 ) 가  
 (p=0.02). 1  
 11), 가  
 Kocher-Langenbeck, Harris hip score  
 ilio-inguinal, 2 4  
 T-extended ilio-femoral, trirradiating  
 , Canesale, extended ilio-  
 femoral Kocher- Langebeck  
 Letournel 14) 가  
 가 가  
 10 25 50%가 가 가  
 80%가 가  
 10 Harris hip score





730 • / 13 4

가 가

.(P=0.02)

Epstein<sup>4)</sup>

(35%) 가 ,

Rowe and Lowell<sup>21)</sup>

12.2% ,

21.4%

21% 70%

14

(7.1%)

1 extended iliofemoral

. Letournel<sup>14)</sup>

Indomethacine

2

7GY

가

( 2 4 ),

가

1989 5 1999 2

1

가 가 14 ( , )

가

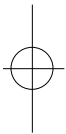
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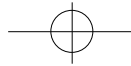
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## Abstract

## Significance of Anatomic Reduction in Acetabular Fracture

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**Purpose :** The purpose of operative treatment in acetabular fracture is to restore anatomically the disrupted joint surface and prevent post-traumatic arthritis. We analysed the relationship between the types of the fracture, its location, reduction state with the development of post-traumatic arthritis and hip joint function in postoperative period.

**Method & material :** A clinical analysis was performed on 14 patients, excluding patients with anterior & posterior wall fracture, with displaced acetabular fracture who had been treated by open reduction and internal fixation. All patients had been followed for minimum 1 year in our department from May 1989, to February 1999.

**Result :** The type of acetabular fracture was not correlated statistically with post-traumatic arthritis and Harris hip score. The reduction state of acetabular fracture was significantly correlated with post-traumatic arthritis and Harris hip score. The anatomic location of acetabular fracture was not correlated statistically with post-traumatic arthritis but correlated with Harris hip score.

**Conclusion :** Anatomic reduction is more significant factor in postoperative outcome of acetabular fracture than the type of fracture and the anatomic location of fracture.

**Key Words :** Acetabular fracture, Open reduction, Internal fixation, Anatomic reduction

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