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= Abstract =

Results of Treatment for Acetabular Fracture involving Posterior Wall

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The purpose of this study is to analyze the results of treatment of posterior wall fracture of acetabulum, which were treated at our hospital from September 1994 to December 1996. Among 24 posterior wall fractures, 15 cases were confirmed as isolated posterior wall fractures and nine fractures were associated with other acetabular fracture (4 transverse fracture, 3 both column fracture, and 2 posterior column fracture). Clinical follow-up was performed for a minimum of 2 years. The posterior wall fracture was classified according to fracture size (type 1: <25%, type 2: 25-50%, type 3: 50-75%, type 4: >75%) and comminution (A: without comminution, B: with comminution, C: impacted) on standard roentgenogram and CT scan. Fourteen among 24 posterior wall fractures were followed for a minimum of 2 years, and the mean Harris hip score was 91.2. Dislocation of hip occurred in 12 hips (50%). There was no definite difference of Harris hip score in regard to fracture size and comminution of posterior wall. Fractures with posterior hip dislocation had poor result compared with fractures without posterior hip dislocation. Anatomical reduction showed better clinical result than imperfect and poor reductions.

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Key Words : Acetabulum, Posterior Wall, Fracture

24

, ,

Letournel

, , , , ,

가 8,1).

가 1.

, 24 18 (75%),
50% 6 (25%) , 40.9 (; 17 -
10,12). 69) .

가

2.

,

. Valias

가 22 가

18) 50%

2 .

, Keith 7)

20%

3.

40%

. Calkins

24

12 (50%)

3)

34%

, 55%

9

가 , , , ,

가

4-8

4.

5,13).

가

4).

, Letournel Judet

A, B, C 3

1994 9 1996 12



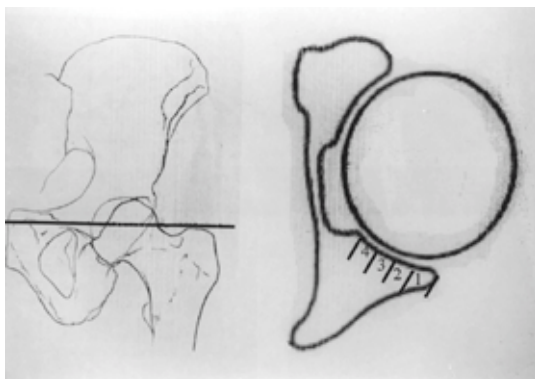
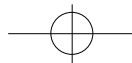


Fig. 1. Classification of the acetabular posterior wall fracture according to fracture size. Posterior wall fractures size was measured on CT image at the level of the tip of greater trochanter.

Harris hip score

Harris hip score

Matta¹¹⁾

가

0 1mm

, 2 3mm

, 3mm

, 1mm

가

50%

25%

, 25-50%

, 50-

가

Harris hip

score

Wilcoxon signed rank test

75%

, 75%

1, 2, 3, 4

(Fig. 1).

5.

24 18

6

24

15

15

12

9

6

9

가 4

가 3

가 2

(Table 1).

A

9, B

14

C

1

1

7

, 2 3

18

Kocher-Langenbeck

approach 16, Iliioinguinal approach 1, Extended iliofemoral approach 1

6.

Harris hip score

A, B, C

1, 2, 3, 4

Table 1. Frequency of acetabular posterior wall fractures

Type of Fractures	No of cases
Isolated Posterior Wall fractures	15
Posterior Wall Fracture associate with	
Transverse	4
Both column	3
Posterior column	2
Total	24

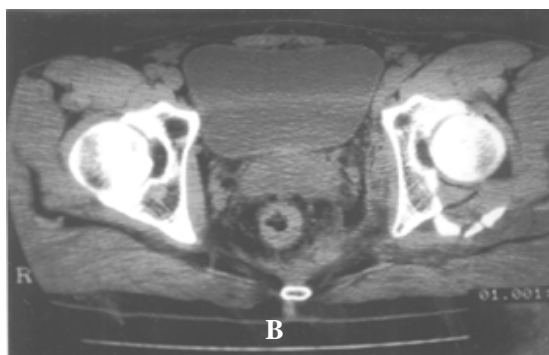
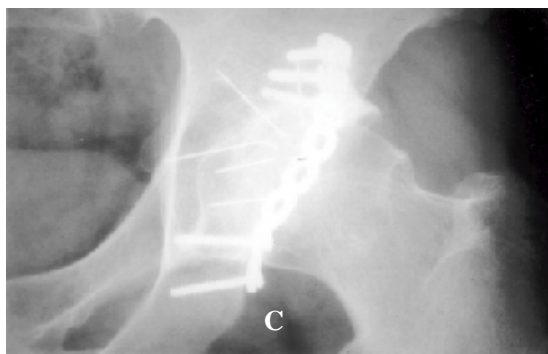
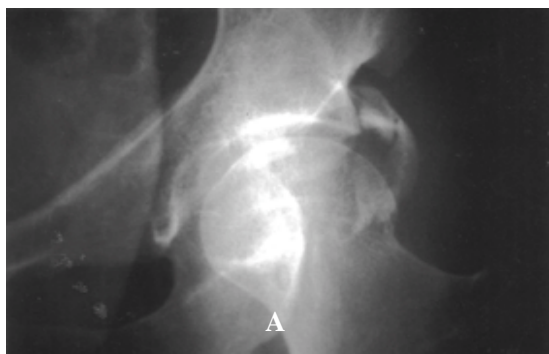


Fig. 2-A. Preoperative radiograph of a 43-year-old patient with isolated type C posterior wall fracture.

2-B. CT axial image shows comminution of posterior wall.

2-C. Radiograph taken 2 years after plate and screw fixation.

, 3 6 4 8 .
24 2 가 1
가 14 Harris hip score 가 (Fig.
91.2 . 3A., 3B., 3C.).
15 가 가 9 Harris hip score 1 7
4 92.3, 2 가 1
2 97, 1 Harris hip score 100 .
100 2 92 2 3 가 2
9 Harris hip score Harris
가 가 5 Harris hip score hip score 82, 90 . 3 6 Harris
3 79, 1 96 . 5 Harris hip score 가
96, 1 96 . 96 90.2 . 4 8 88.7,
24 A 9
2 가 1 ,
Harris hip score 100
B 14 12
가 Harris hip
score 89.6 . C 1
2 Harris hip score 100
(P=0.08)(Fig. 2A., 2B., 2C.).
24 12 (50%)
2 가 가 6
Harris hip score 85 .

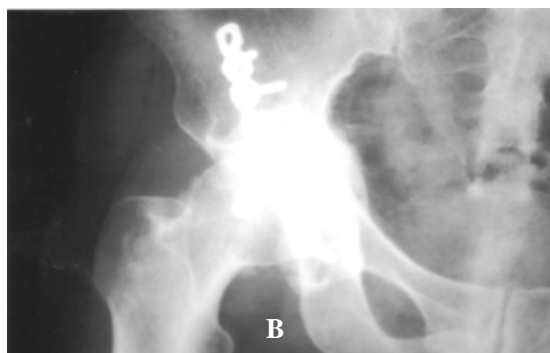
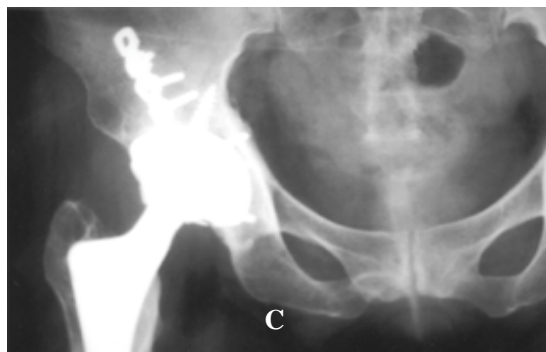
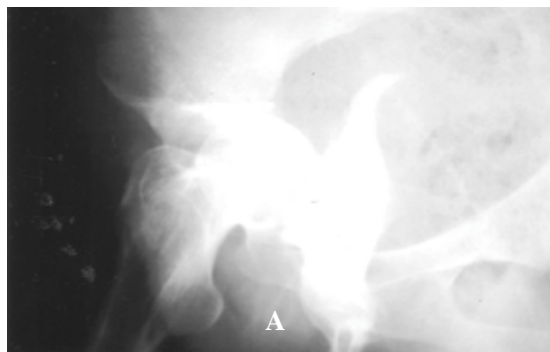
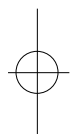


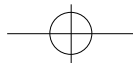
Fig. 3-A. Preoperative radiograph of a 53-year-old patient with transverse acetabular fracture associated with posterior wall fracture.

3-B. Radiograph at postoperative one-year shows joint space narrowing, and at this time the Harris hip score was 62.

3-C. Total hip arthroplasty was performed at one year postoperatively due to pain and LOM



12 2 가가
7 Harris hip score 93.5 . 11 (32%) 15 (62%) 가 9 .
18 가가
10 14.1mm(3- , , ,
30) , , ,
7 , 2 , (quadrilateral surface)
1 2 Harris hip
score 95, 69, 62 (P=0.038). 15)
가3 , 가6 ,
1 .
6,8,13,16,17)
9,13). Matta¹¹⁾
가
. Letournel Judet 691
50% Harris hip score 95
1/3 69, 62
6). Letournel Judet
24 가



가

Harris hip score

5,6,12)

1

10

1

9

A, B, C

Harris hip score

C

1

가

: 21

1, 2,

3, 4 Harris hip score

1

Harris hip score 62

Harris hip score가

1/3

가

80%

가

1).

3

2

가가

Harris hip score 93.3

24

1.

, Harris hip score

2.

가

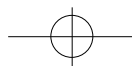
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