



12, 4, 1999 11

The Journal of the Korean Society of Fractures
Vol.12, No.4, November, 1999

= Abstract =

Treatment of comminuted distal humeral intercondylar fracture using transolecranon approach

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Fracture of the distal humerus is rare, so the surgeon's experience is limited. These injuries represent a constellation of complex articular fractures and anatomic complexity of distal humerus makes surgical treatment, open reduction and internal fixation is difficult. We analyze the clinical result of immediate open reduction, rigid internal fixation, and early postoperative motion. From Nov. 1990 to Sep. 1997, the authors analyzed the clinical results of 5 cases those who underwent operative treatment using transolecranon approach, internal fixation with Y plate and early motion for comminuted distal humeral intercondylar fracture. ROM exercise was started at average 2.2 weeks postoperatively. 4 of 5 patients obtained satisfactory results by Riseborough and Radin rating criteria. One patient obtained poor result of 40 degree flexion contracture and 90 degree further flexion of elbow. Transolecranon approach makes the

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* 1998



complete anatomic reduction of articular surface possible and the satisfactory results is associated with immediate, complete anatomic reduction and rigid fixation in conjunction with early postoperative motion.

Key Words : Humerus, Intercondylar fracture, Transolecranon approach

가 4 1 가 , , 가 , , 가 9. , pin in plaster 가 1. 5 가 3 , 가 2 23 61 47 . K- , 3 , 2 (Table 1). Y 2. 3 2 . 3. 3,6,15). Mehne Matta¹¹⁾ T 4 Y 1 2 (Table 2). Y 2-3 5 1990 11 1997 9 가

Table 1. Age and sex distribution

Age	Male	Female	Total
21-30	1		1
31-40			
41-50	1		1
51-60	1	1	2
61-70		1	1
Total	3	2	5



• 983

Table 2. Classification

Type	Mal	Female	Total
High T	3	1	4
Low T			
Y	1		4
H			
Medial Lambda			
Lateral Lambda			
Total	4	1	5

Table 3. Rating criteria

Good	A range of elbow motion from a flexion contracture of 30 degrees or less to at least 115 degrees of flexion with or without minor subjective symptoms
Fair	A range of elbow motion from a flexion contracture of between 30 to 60 degrees to at least 115 degrees of further flexion with or without minor subjective symptoms
Poor	A range of elbow motion from a flexion contracture of 60 degrees or more to less than 115 degrees of flexion with or without major subjective symptoms

(drilling) (trochlear notch)

(electrical saw) , (osteotome)

Y

2

K- loop

15 4

2 1 3

7.

2.2

Riseborough Radin¹³⁾ rating

5 4

1 40

90

5 3

1 ,

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5.

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가1 2

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6.

1

51

(olecranon tip) 2 Mehne Matta¹¹⁾ T



2

5

1 2

10-130 °

2

(Fig. 1-A, B, C, D, E, F).

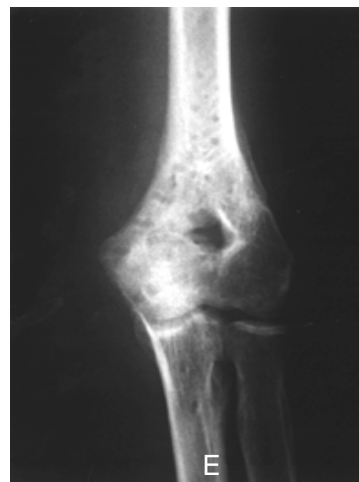
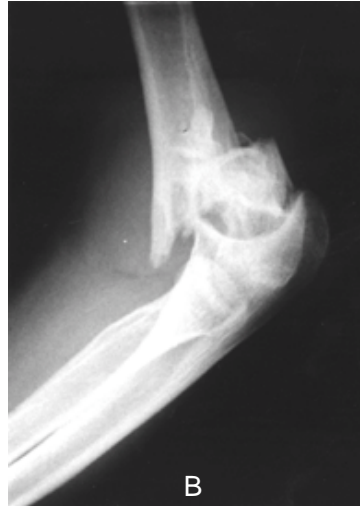


Fig 1-A. Initial anteroposterior radiograph shows high T fracture which both columns are fractured above the olecranon fossa

B. Initial lateral radiograph

C. Immediate postoperative anteroposterior radiograph

D. Immediate postoperative lateral radiograph

E. Anteroposterior radiograph after removal of internal devices at postoperative 5 months.

F. Lateral radiograph after removal of internal devices at postoperative 5 months.

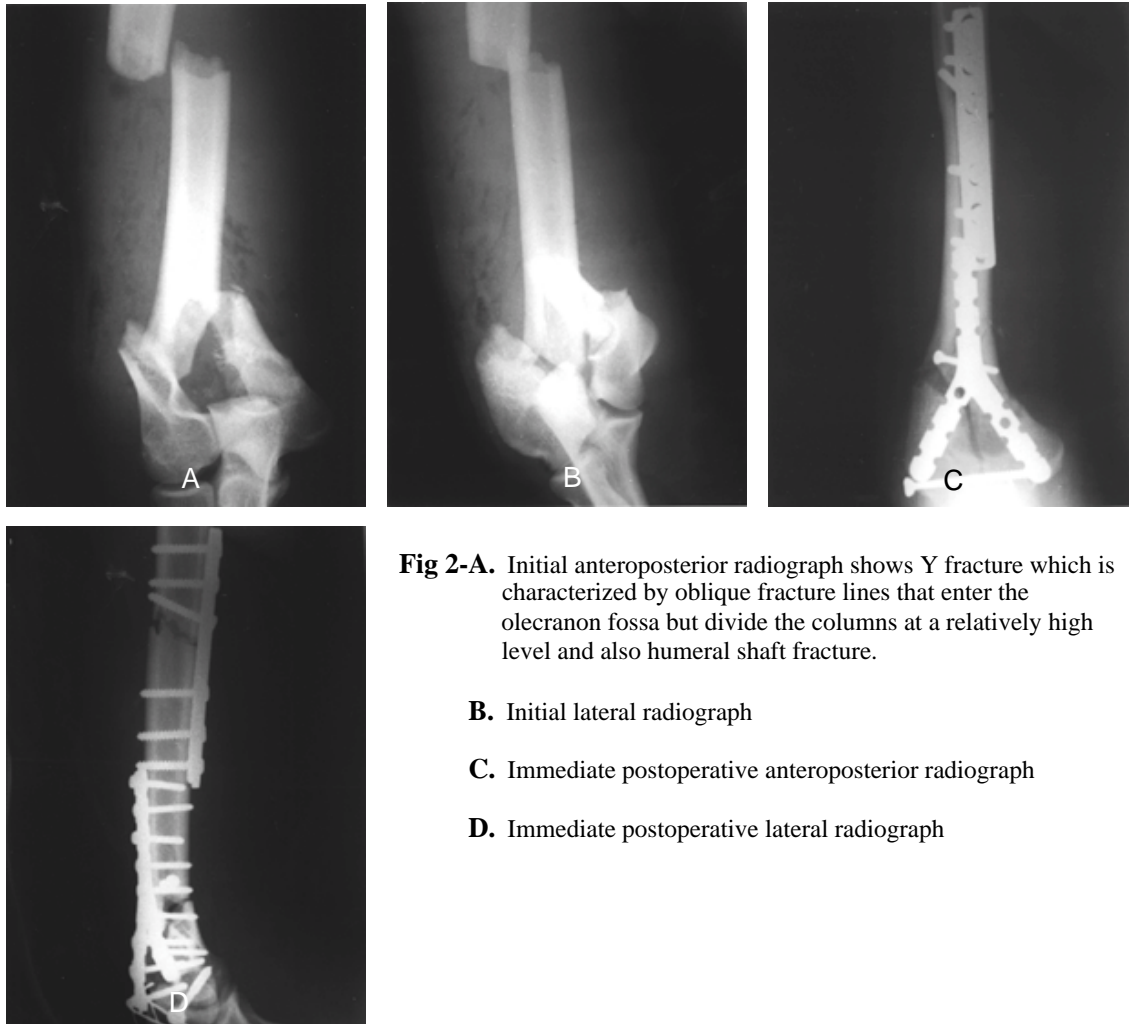


Fig 2-A. Initial anteroposterior radiograph shows Y fracture which is characterized by oblique fracture lines that enter the olecranon fossa but divide the columns at a relatively high level and also humeral shaft fracture.

B. Initial lateral radiograph

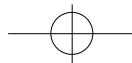
C. Immediate postoperative anteroposterior radiograph

D. Immediate postoperative lateral radiograph

2
43
Mehne Matta¹¹⁾ Y
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12 2
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3
6
1 5 30-115°
(Fig. 2-A, B, C, D).

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9).

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1 .

Y

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