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= Abstract =

The Result After Surgical Treatment on Lateral Condyle Fracture of Humerus in Children

Dong Soo Kim, M.D., Kook Jin Chung, M.D., Jong Guk Ahn, M.D.,
Byung Hyun Jung, M.D., Yeol Bo Sung, M.D., Hyung Jin Chung, M.D.,
Chil Soo Kwon, M.D.

Department of Orthopedics, Sanggye Paik Hospital, Inje University

Fracture of the lateral condyle of humerus in children are common injury next to supracondylar fracture in children, account for 10 to 15% about the elbow and 18 to 20% about distal humerus fractures. This is the one fracture that can be overlooked clinically and that has a high potential for nonunion and cubitus valgus deformity.

Sixty children treated by closed or open reduction with internal fixation on the lateral condyle fracture of humerus from January 1994 to August 1997, were reviewed. Almost fractures were treated within 12 hours after injury for the purpose of prevention of further displacement and occurrence of complication.

According to Hardacre et al 's criteria, most patients showed excellent and good results. We report the result after surgical treatment on the lateral condyle fracture of humerus in children.

Key Words : Fracture, Lateral condyle, Humerus, Children

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Tel : (02) 950-1032

Fax : (02) 934-6342

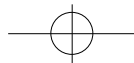
* 1998



4.9
가 45 (75%), 가
가 3 (5%) 30 ,
12 (20%), 30
10
15% 18
20% (10%), 2 54 (90%) 2 1 6
가
가
43 (72%)가 12 , 12
(20%)가 24 , 5 (8%)가 3
Kocher J
2 3 K
30 , 30
K-
6.3 5 11
7.8
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1994 1 1997 5
1 가가 30
60 2mm
39 , 21 1.8 : 1
11 11 3
Hardacre⁸⁾ (Table 1)

Table 1. Evaluation of Results (by Hardacre)

	Results	No(%)
Excellent	No loss of motion, No symptoms	57(95%)
	No alteration in the carrying angle	
Good	Lacking no more than 15 degrees of full extension	2(3%)
	Inconspicuously altered carrying angle	
	No arthritic or neurological symptoms	
Poor	Disabling loss of motion	1(2%)
	Conspicuous alteration of the carrying angle	
	Arthritic symptoms or ulnar neuritis	
	Nonunion or avascular necrosis	



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Salter-

15, 20

Harris 4

13.6

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13.9

Milch^{13,14)}

1

2

Jacob¹⁰⁾McIntyre¹²⁾

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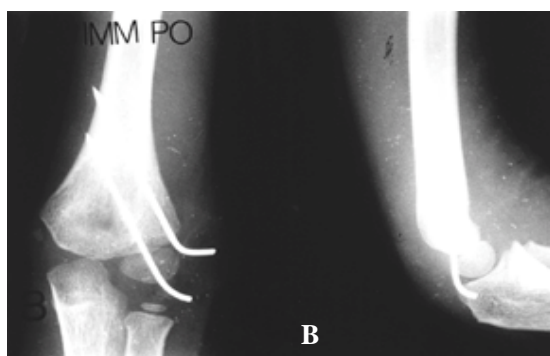
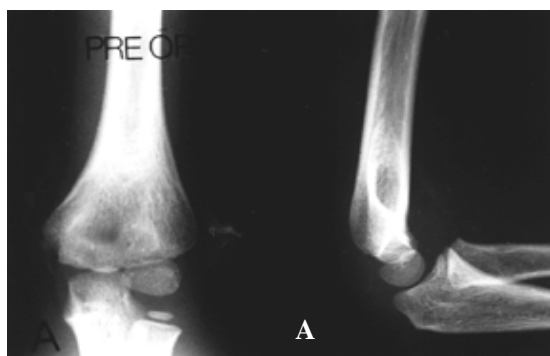
Dallek⁴⁾

Fig 1. Case 1. 6 year old boy.

- A.** Preoperative x-ray showed Milch type II lateral condyle fracture with minimal displacement of fragment of fracture.
- B.** Emergency operation was done after 12 hours from injury. In situ percutaneous pinning with K-wires was performed.
- C.** We have got excellent result in view of symptoms, carrying angle and function according to criteria by Hardacre et al at one year after operation.

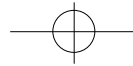
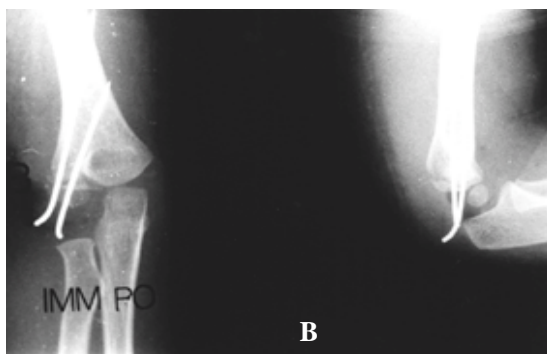
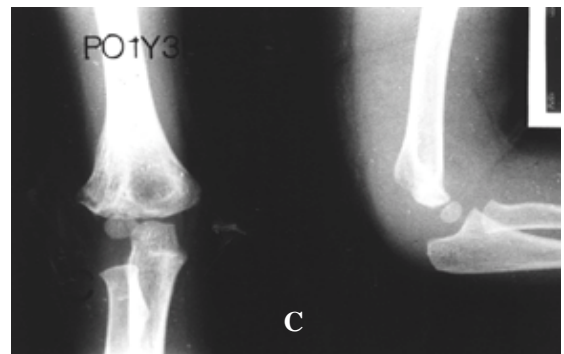
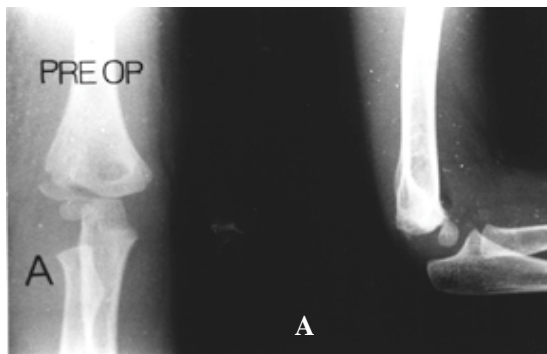
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Fig 2. Case 2. 5 year old girl

- A.** Preoperative x-ray showed Milch type II lateral condyle fracture with displacement beyond 2mm of fragment of fracture but, articular congruency was maintained by cartilaginous hinge.
- B.** Emergency operation was done with closed reduction and internal fixation with K-wires.
- C.** At 15 months after operation, the result was excellent.



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60

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2mm

, 2mm

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Hardacre⁸⁾ 60 57 (95%)가
 , 2 (3%)가 , 1 (2%)가

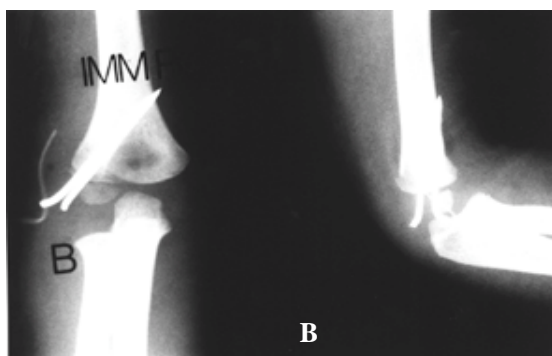
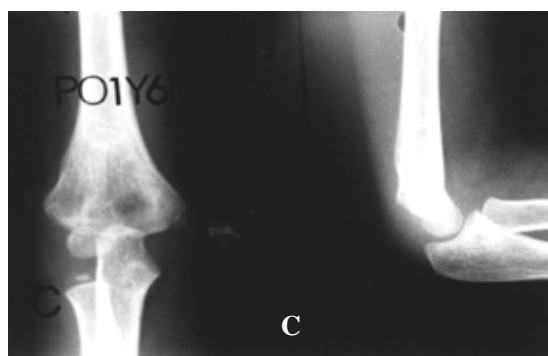
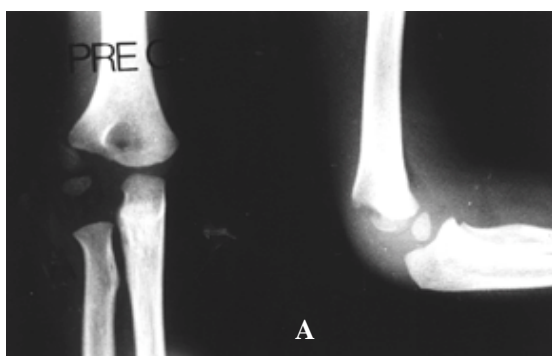


Fig 3. Case 2. 5 year old girl

- A.** Preoperative x-ray showed Milch type II lateral condyle fracture with displacement beyond 2mm of fragment of fracture but, articular congruency was maintained by cartilaginous hinge.
- B.** Emergency operation was done with closed reduction and internal fixation with K-wires.
- C.** At 15 months after operation, the result was excellent.



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