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= Abstract =

Treatment of Supracondylar Fractures of the Humerus in Children by Open Reduction

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Purpose : To analyze the results of open reduction in displaced supracondylar fractures of the humerus in children, and to propose guidelines for an open approach to supracondylar fractures.

Materials and Methods : Twenty-six children (average age 6.7 years), who had open reduction of severely displaced supracondylar fractures were reviewed retrospectively over a 2-year period (1993 to 1997). Elbow range of motion, carrying angle, and radiographic measurement of the Baumann angle were assessed, then each distal humerus were compared to uninjured side.

Results : At follow-up, the Baumann angle and carrying angle differed by an average of 2 degrees and 4 degrees respectively compared with the unaffected arm. Range of motion was satisfactory in 96% of patients, and there was no significant cubitus varus.

Conclusions : Open reduction of severely displaced supracondylar fractures is a safe and effective procedure, for which orthopedists should lower their threshold, given certain

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appropriate indicators.

Key Words : Humerus, Supracondylar fracture, Open reduction

10 ,

pucker sign .

6.7 , 가20 , 가6 .

48.5 .

가 24 , 2 ,

18 , 6 .

3 , 1

1 .

17

1

K

가

6

2

3

10 11

, 1

1

가 K

2 , 3

2

가 3

가

가

Baumann ,

Flynn ¹⁰⁾

(Table 1).

1993 1 1997 1

2

가 26 .

Gartland 3 ,

3 ,

8 , 5 ,

Baumann 20. (10-28%),



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Table 1. Criteria for Flynn et al

Results/rating	Cosmetic factor: carrying-angle loss(degrees)	Functional factor: motiom loss(degrees)
Satisfactory		
Excellent	0-5	0-5
Good	6-10	6-10
Fair	11-15	11-15
Unsatisfactory		
Poor	>15	>15

18_o (9-26_o) , Baumann 1

18_o (9-26_o) . 가

8_o (0-15_o), 12_o (0-16_o) ,

4_o . 15 ,

가 4 가 가 7 ,

15 5_o ,

10_o , 140_o (120_o - 1 , 1 , 10

155), 140_o (125-155_o) . 5 가 . 1

10_o 4 , 15_o 1 . Flynn 2

(cosmetic factor) 20_o ,

27 , 1

(functional factor)

25 , 2 , 1

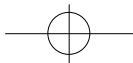
(Table 2). 5

3 , 1 , 1

(neurapraxia) , ,

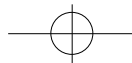
Table 2. Overall results by Flynn 's criteria

Results/rating	Cosmetic factor: carrying-angle loss(degrees)	Functional factor: motiom loss(degrees)
Satisfactory		
Excellent	27	25
Good	1	2
Fair	0	0
Unsatisfactory		
Poor	0	1



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가 , 가 15)
. Flynn¹⁰⁾ 98% , Nacht²¹⁾ 가 ,
, Pirone²³⁾ 가 가 .
가 , 가 1)
K- 41 14 3.75% ,
가 , 28.5% 가 .
가 ,
가 ,
가 ,
가 ,
. Godley¹⁴⁾ ,
1.4%
6) Carcassone
가 가 , 1
Herzenberg¹⁶⁾ 가가
, Fowler Kassab¹¹⁾ 85% K
가 K
Smith²⁵⁾ , Ippolito¹⁷⁾ 가 K
Worlock²⁸⁾ 가 가 15 5.
가 , K

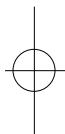


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, 1 2 20, ,
1 5
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Gartland 3
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가

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