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= Abstract =

## Treatment of the Acromion Fracture

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Fractures of the acromion process are relatively rare, then no accepted treatment method has been established.

The purpose of this study was to review of the acromion fracture in our cases, to determine trends in the mechanism of injury, the fracture pattern, and treatment method, and to evaluate the clinical results.

From June 1990 to May 1996, we review 19 cases of the acromion fractures at our institution.

The results were as follow :

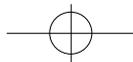
1. The types of fracture were type I-A in 4 cases, type I-B in 6 cases, type II in 6 cases, type III in 3 cases.
2. Clinical results were excellent in 9 cases(52.9%), good in 6 cases(29.4%), fair in 3 cases, poor in 1 case.
3. Type III fractures suggesting that early surgical intervention may be indicated

**Key Words** Acromion fracture

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270-1 (790-310)

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9%<sup>1)</sup>, 1% 4), 1990 6 1996 5 19 ,

3) , 가 16 , 가 3 ,

20 69 41.6 .

1. 가 12 (63.1%) 가 6 (31.6%), 1

9,10,11), (21%), 5 (26.3%), 4

6) 1990 6 1996 5 19 (15.7%) 3

2. 5 , 3 ,

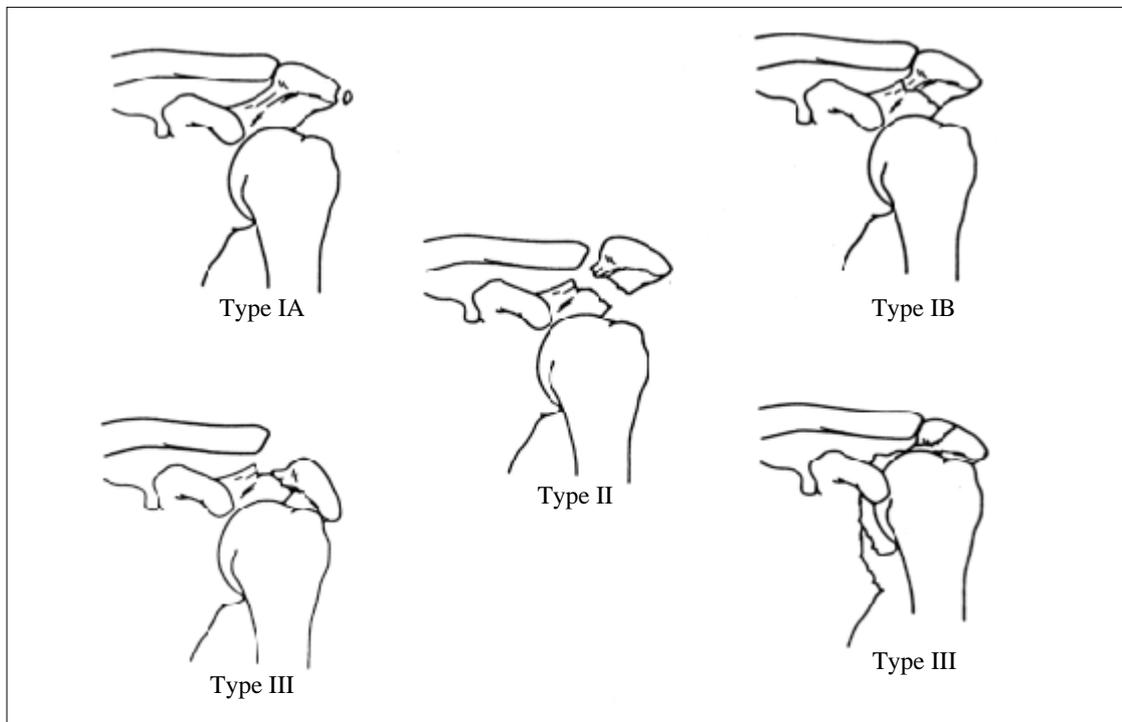


Fig 1. Classification of fracture of the acromion process.

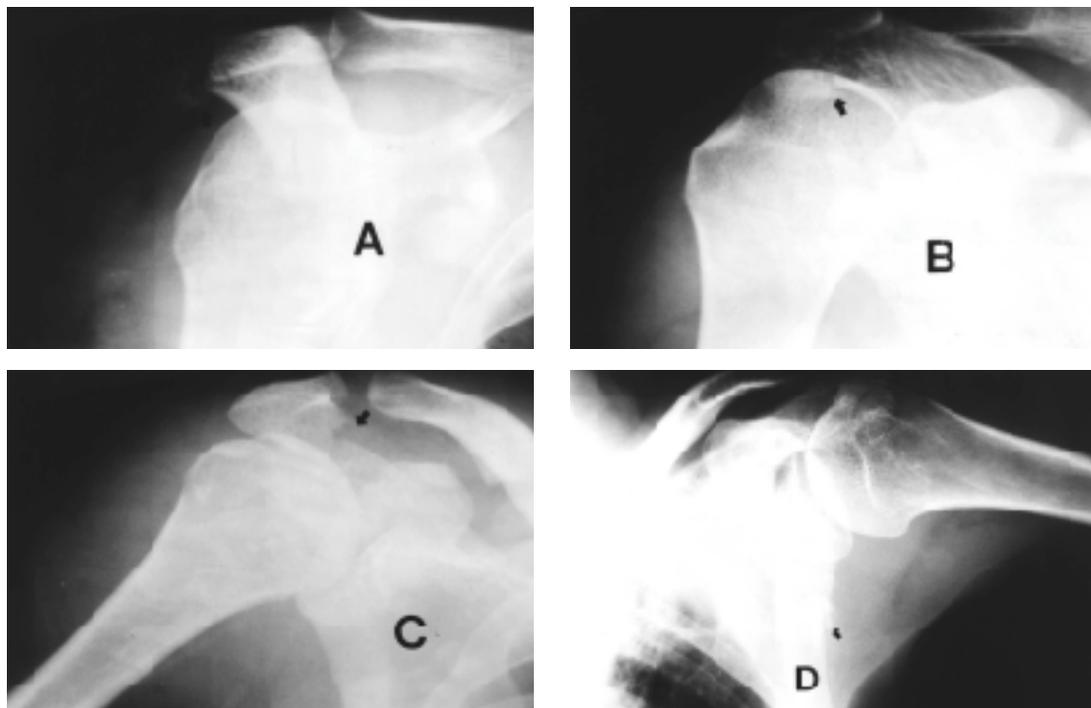
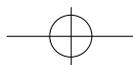


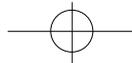
Fig 2-A. Type IA, avulsion fracture of the acromion process.  
 B. Type IB, minimally displaced true acromion fracture. the arrow designates the transverse fracture line.  
 C. Type II, displaced fractures of the acromion process with no reduction in the Subacromial Space. this fracture displaced superiorly, did not have a rotator cuff tear.  
 D. Type III, minimally displaced fractures of the acromion process with an ipsilateral superiorly

2 , , ,  
 1 .  
 3 , 1 , 1 가 .  
 3.  
 Kuhn <sup>6)</sup> (Fig 1), I-  
 A , I-B  
 가 2mm , II , ,  
 , III 가 ,  
 가 .

Table 1 Classification of acromion fracture

Type	No. of Cases
I Minimally Displaced Fractures	
IA : Avulsion Fractures	4
IB : True Fracture	6
II Displaced Fractures with No Reduction in the Subacromial Space	6
III Displaced Fractures with Reduction in the Subacromial Space	3

19 I-A 4 , I-B 6 , II 6 ,  
 III 3 (Fig 2)(Table 1).



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4. , Hardegger <sup>4)</sup> 가  
 19 17 2 , ,  
 sling swath 17 I II 19 9 (52.9%),  
 III 1 I 6 (29.4%), 3 , 1 82.3%  
 , 3 - 4 (Table 2).  
 가 I-A 4 3  
 sling swath II 2 1  
 , 4 가  
 60 , 25 , 25 . I-B 6  
 4-6 가 II 6  
 1 , 3 , 2 ,  
 2 1 ,  
 III 2 3-4 sling swath , 1  
 . III 3 2  
 1 (Table 3).  
 2.  
 1. , 2 19 2  
 , 2 2  
 . 1

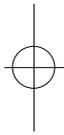
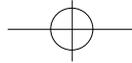


Table 2 Functional clinical results

Result	No. of Cases
Excellent	Full ROM
	No pain
	Muscle power : Grade IV or V
Good	9 (52.9%)
	minimal limitation (abduction deficit <30°)
	minimal pain (occasional with heavy activity)
	Muscle power : Grade III
Fair	6 (29.4%)
	moderate limitation (abduction deficit 30°-40°)
	moderate pain (occasional with routine activity)
	Muscle power : Grade II
Poor	3 (14.7%)
	severe limitation (abduction deficit >40°)
	severe pain (constant)
	Muscle power : Grade I
	1 (4.0%)





**Table 3** Functional clinical results associated Fracture type

Type	Excellent	Good	Fair	Poor
IA	3	0	0	1
IB	4	2	0	0
II	1	3	2	0
III	1	1	1	0

(Supraspinatus outlet)

가

Dennis<sup>3)</sup>

3

2

Kuhn<sup>6)</sup> 2

가

I-A  
Stoker<sup>5)</sup>가

Heyse-Moore

가

4

3

1

I-B

2mm

가

9,10,11)

가

6

가

가

II

III

6

가

가

(precartilage)

(mesenchyme)

8 4

3

(meta-acromion, meso-

acromion, pre-acromion)

가, 15

II

가

가

가

25

Os acrominale

meso-acromion meta-acromion

8) 3%

62%

15)

6

가

II

7)

4

, 2

. 1

가

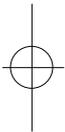
, Rockwood

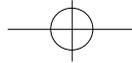
Matsen<sup>15)</sup> 30

(Caudal tilt)

III

가





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 가 . III  
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 (tension band wiring)<sup>4)</sup>,  
 , <sup>2)</sup>,  
 2  
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 II , III  
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 1990 6 1996 5  
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 II 6 , III 3 I 10 가  
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 2. 9 , 6 , 3 ,  
 1 .  
 3. III 3 2 가  
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