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= Abstract =

## A Comparision of Conservative and Operative Treatments in the Bony Mallet Finger

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Mallet finger is a commom deformity caused by disruption of the extensor mechnism at the dorsal base of the distal phalanx.

Patients can by managed by either conservative or operative treatment depending on some factors, such as the fracture type and interval from injury to medical treatment. However, whether to perform conservative or operative treatment is in debate.

We conducted this study to compare the results of conservative and operative treatment of mallet finger caused by intra-articular fracture of the distal phalanx, with not more than one third of the articular surface of the distal phalanx involved.

From March 1994 to April 1999, we experienced 26 cases of bony mallet fingers. Following are the results.

1. The result by Kanie 's scale was satisfactory in 9 cases of 12 in conservative treatment(75%), and 10 cases of 14 in operative treatment(71%)( $P>0.05$ ).
2. The result was satisfactory in 8 cases of 10 in patients who were treated within 2

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weeks(80%), and 4 cases of 7 in those treated after 4 weeks(57%)( $P<0.05$ ).

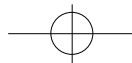
3. Conservative treatment was more cost effective, easier to perform compared to operative treatment. Thus, we suggest conservative treatment as the better treatment method for bony mallet finger with not more than one third of the articular surface of the distal phalanx involved.

**Key Words** :Mallet finger, Conservative and Surgical treatment

1. 가가 26  
가  
2. Smillie K-  
Pull-out  
3. Kanie's scale<sup>10)</sup>  
가 (Table 1).  
4.  
12 가4 , 가5 ,  
1 , 2  
9 (75%)  
14 가5 , 가5 , 2 ,  
2 10 (71%)  
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**Table 1.** Evaluation of results by Kanie

Excellent	: < 5 degree, no stiffness, no pain
Good	: 5 - 10 degree, no stiffness, occasional pain after prolonged activity
Fair	: 11 - 20 degree, stiffness or impairment of flexion, frequent pain with average use
Poor	: 21 < degree, stiffness & impairment of flexion, constant pain

**Table 2.** Result in relation to treatment type

	Conservative	Operative treatment	Total
Excellent	4	5	9
Good	5	5	10
Fair	1	2	3
Poor	2	2	4
total	12	14	26

가 (P>0.05)(Table 2).

2 10 8 (80%)  
 , 4 7 4  
 (57%) 2  
 가 (P<0.05).  
 2 10 6 5  
 (83%), 4 3 (75%)  
 , 4 7  
 2 1 (50%), 5 3  
 (60%) 2

가 (P>0.05), 4

가

가

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(Table 3).

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**Table 3.** Result in relation to interval from to treatment

	< 2wks	2-4wks >	4wks	Total
Excellent	4 (3 / 1)	3 (1 / 2)	2 (0 / 2)	9 (4 / 5)
Good	4 (2 / 2)	4 (2 / 2)	2 (1 / 1)	10 (5 / 5)
Fair	1 (1 / 0)	1 (0 / 1)	1 (0 / 1)	3 (1 / 2)
Poor	1 (0 / 1)	1 (1 / 0)	2 (1 / 1)	4 (2 / 2)
total	10 (6 / 4)	9 (4 / 5)	7 (2 / 5)	26 (12 / 14)

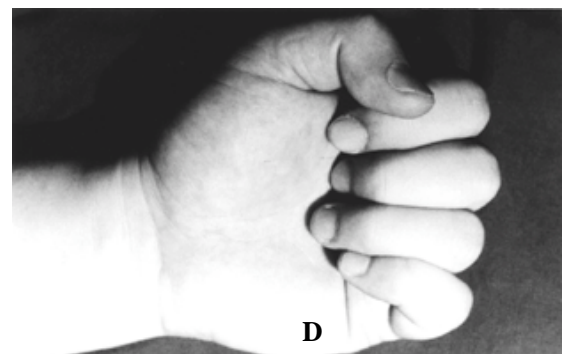
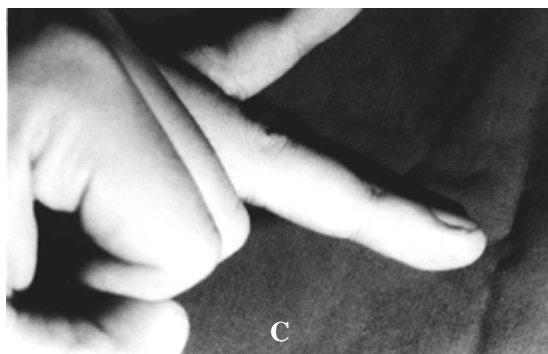
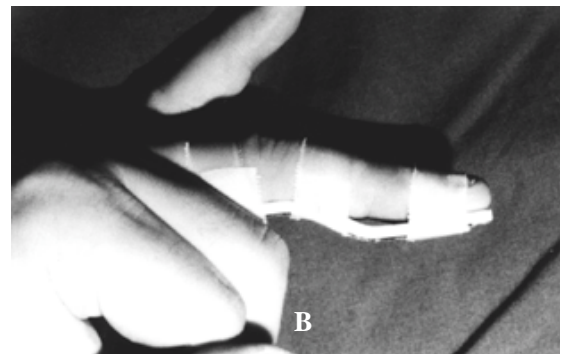
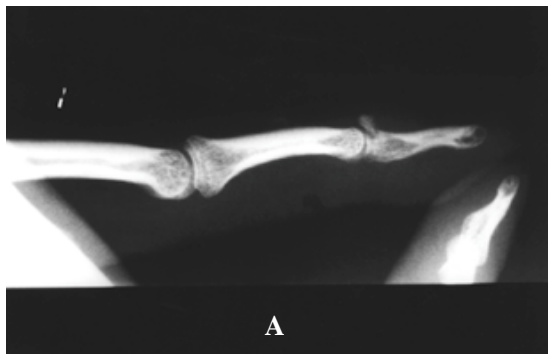
\*( ) ( / )



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가 . Lewin<sup>11)</sup> 가 K-  
 , Pull-out K-  
 가 , Stern Kastrup<sup>18)</sup> K-  
 , , ,  
 5,7,12,13), 3,9) ,  
 가 wire , wire  
 14,17), , pull-out  
 8,12), Bischoff<sup>4)</sup> ,



**Fig 1.** The radiography & photography of 18 year old male patient whose bony mallet finger was treated with conservative method.

- A. Initial rentgenogram
- B. Post-splinting photography
- C. Full extension of DIP joint after 12 month
- D. Mild flexion limitation of DIP joint after 12 month



Schneider Webhe<sup>15)</sup>

, Garberman S.F. <sup>6)</sup>

, Stern Kastrup<sup>18)</sup>

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Splinting

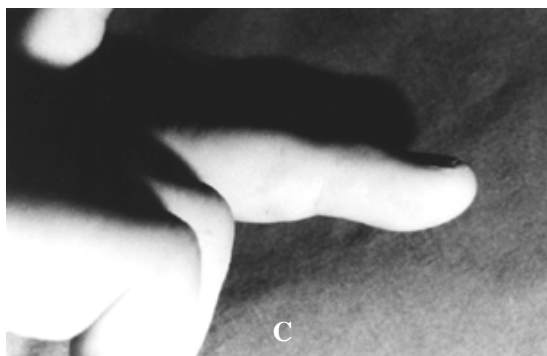
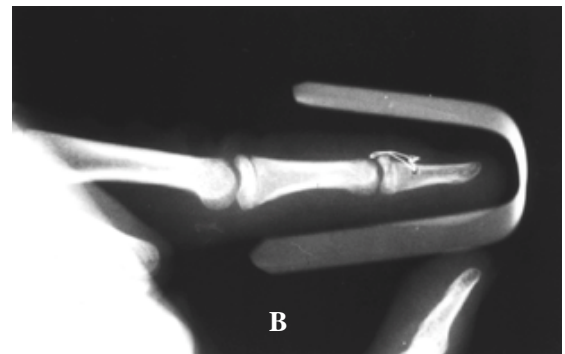
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Kanie's scale

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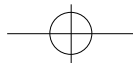
**Fig 1.** The radiography & photography of 37 year old male patient whose bony mallet finger was treated with operative method.

**A.** Initial rentgenogram

**B.** Post-op rentgenogram

**C.** Full extension of DIP joint after 18 month

**D.** Full flexion of DIP joint after 18 month



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1999 4 1/3

26

1. Kanie's scale 가

75%(12 9 )

71%(7 4

) (P&gt;0.05).

2. 2 80%(10 8 ), 4

57%(7 4 )

(P&lt;0.05), 2 10

83%(6 5 ),

75%(4 3 )

(P&gt;0.05).

2

가

1/3

가

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