



13, 3, 2000 7

The Journal of the Korean Society of Fractures  
Vol.13, No.3, July, 2000

## Monteggia

. . . . .

가

&lt; &gt;

: Monteggia

. Monteggia

: 1990 1 1999 11 Monteggia 26 6

9 67 25.5

: Bado

1

,

4

2

2

5

12

4

가

,

가

1

12

14

, 1

,

: Monteggia

가

, 12

: Monteggia

,

,

, 159 Monteggia

5

Monteggia

,

4

,

Monteggia

7

가

6

가

,

. Boyd Boals<sup>3)</sup> Monteggia

.

:

2 520-2

가

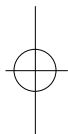
(301-723)

Tel : (042) 220-9530

Fax : (042) 221-0429

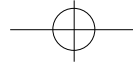
\*

26

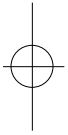


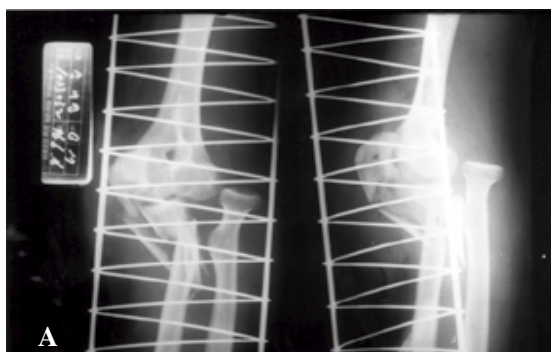


Monteggia				2.			



Bado 1 . Monteggia  
 2  
 . 2 6,11,14,17,18), William<sup>19)</sup> Monteggia  
 6, 7 가 28  
 . 4  
 가 2 , 2 Boyd Boals<sup>3)</sup> Monteggia  
 1 가 . 1 , 159 Monteggia  
 3 5  
 , 2 10 4  
 12 . 1 12 , Smith<sup>16)</sup> 25 Monteggia  
 6  
 9  
 Fibrous Arcade of Frohse  
 3 11 Monteggia 7 가  
 14 6 가  
 가 5 90 4  
 . Bruce 가  
 1 , 4 , 1 .  
 Arcade of Frohse  
 12 가  
 5 6  
 1  
 16 1 Frohse Arcade of  
 . Hirachi<sup>7)</sup>  
 . Bado 가 가 . Spinner  
 Gustilo-Anderson IIIa<sup>11)</sup> Monteggia  
 (Fig. 1A). 6  
 10 , 6  
 (Fig. 1B,C), 6  
 28 3  
 (Fig. 1D), 8 Bado<sup>1)</sup> Bado 3  
 가 (Fig. 1E) Bruce Spar<sup>17)</sup> 3 Monteggia 20%  
 92 . Penrose<sup>13)</sup> Bado  
 2  
 Spinner  
 Monteggia Bado 1





**Fig 1.** 16 years female patient

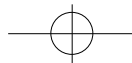
- A.** Preoperative roentgenogram of severe open comminuted fracture of the proximal ulna and anterior dislocation of the radial head combined with the radial nerve palsy. (Bado type I Monteggia fracture)
- B.** Open reduction and internal fixation with plate and screws and K-wire were performed.
- C.** At the postoperative 10 months, complete union at the fracture site was noted.
- D.** At the postoperative 28 weeks, complete spontaneous recovery of the radial nerve palsy occurred.
- E.** ROM of the elbow was full.

Bado

1  
Spar<sup>17)</sup> Monteggia  
, Arcade of Frohse

Arcade of Frohse

1



Monteggia

가 ,

가

12

Fibrous Arcade of

Frohse

## REFERENCES

- 1) **Bado JH** : The Monteggia Lesion. *Clin Orthop*, 50:71-90, 1967.
- 2) **Bell Tawse A** : The treatment of malunited anterior monteggia fracture in children. *J Bone Joint Surg*, 47-B:718-723, 1965.
- 3) **Boyd HB and Boals JC** : The Monteggia lesion. a review of 159 cases. *Clin Orthop*, 66:94-100, 1969.
- 4) **Bruce HE, Harvy JP and Wilson JC** : Monteggia Fractures. *J Bone Joint Surg*, 56-A:1563-1576, 1974.
- 5) **Dormans JP and Rang M** : The problem of Monteggia fracture-dislocation in children. *Orthop Clin N Am* 21(2):251-256, 1990.
- 6) **Harold BB and Joseph CB** : The Monteggia Lesion. *Clin Orthop*, 66:94-100, 1969.
- 7) **Hirachi K, Kato H, Minami A, Kasashima T and Kaneda K** : Clinical features and treatment of traumatic posterior interosseous nerve palsy. *J Hand Surg*, 23-B:413-417, 1998.
- 8) **Kalamchi A** : Monteggia fracture-dislocation in children. *J Bone Joint Surg*, 68-A:615-619, 1986.
- 9) **Lichter RL and Jacobson T** : Tardy palsy of the posterior interosseous nerve with a Monteggia fracture. *J Bone Joint Surg*, 57-A:124-125, 1975.
- 10) **Morris AH** : Irreducible Monteggia Lesion with radial nerve entrapment. *J Bone Joint surg*, 56-A:1744-1746, 1974.
- 11) **Morton S, Bernard D and Joel T** : Posterior interosseous nerve palsy as a complication of Monteggia fractures in children. *Clin Orthop*, 58:141-145, 1968.
- 12) **Onley BW and menelaus MB** : Monteggia and equivalent lesions in childhood. *J Pediatr Orthop*, 9(2):219-223, 1989.
- 13) **Penrose JH** : The Monteggia fracture with posterior dislocation of the radial head. *J Bone Joint Surg*, 33-B:65-73, 1951.
- 14) **Sarrard WJ** : Posterior interosseous neuritis. *J Bone Joint Surg*, 48-B:777, 1966.
- 15) **Sasha R, Robert JS and Melvin PR** : The assessment and treatment of nerve dysfunction after trauma around the elbow. *Clin Orthop*, 370:138-153, 2000.
- 16) **Smith FM** : Monteggia Fractures. An Analysis of twenty-five Consecutive Fresh Injuries. *Surg Gynec and Obstet*, 85:630-640, 1947.
- 17) **Spar I** : A neurologic complication following Monteggia fracture. *Clin Orthop*, 122:207-209, 1977.
- 18) **Stein F, Grabias SL and Deffer PA** : Nerve injuries complicating Monteggia Lesions. *J Bone Joint Surg*, 53-A:1432-1436, 1971.
- 19) **William DE and James SK** : Anterior interosseous nerve palsy associated with a Monteggia Fracture. *Clin Orthop*, 174:133-137, 1983.



## Abstract

## Nerve injuries complicating Monteggia lesion

Jae Duk Ryu, M.D., Chang Hwan Han, M.D., Weon Yoo Kim, M.D.,  
Jin Hyung Sung, M.D., Jin Ho Jung, M.D., Jin Young Kim, M.D.

*Department of Orthopedic Surgery, Taejon St. Mary Hospital,  
Catholic University, Taejon, Korea*

**Purpose :** Concerns on the Monteggia lesion was concentrated on the injuries to the bone parts and largely ignores the soft tissues and the nerves in particular. We reviewed injured nerve, treatment and prognosis in the Monteggia lesion associated with nerve injury.

**Materials and Methods :** From January 1990 through November 1999, 26 patients with Monteggia lesions have been treated: six of these patients had associated with nerve injuries. The age of injured patients ranged from 9 to 67 years with an average of 25.5 years.

**Results :** All could be classified as Type 1 of Bado (anterior dislocation of the radial head), and four injuries were open and two were closed. two patients had radial-nerve palsy and four patients had posterior interosseous-nerve palsy, one of them with associated ulnar-nerve palsy. The fifth patient demonstrated complete spontaneous recovery. One patient with posterior interosseous nerve injury was absence of spontaneous return of function within 12 weeks after injury, exploration and neurolysis was performed. Complete recovery of posterior interosseous nerve function occurred in 14 weeks after exploration.

**Conclusion :** Monteggia lesions can be reduced early with ease under general anesthesia and, if necessary, even under local anesthesia. Spontaneous recovery of nerve function may occur within 12 weeks; in the absence of electromyographic or clinical evidence of return of nerve function within 12 weeks, exploration and neurolysis is indicated.

**Key Words :** Monteggia lesion, nerve injury, neurolysis

**Address reprint requests to** \_\_\_\_\_

Chang Hwan Han

Department of Orthopaedic Surgery, Taejon St.

Mary Hospital, Catholic University, 520-2, Daeheung 2 Dong, Jung Gu, Taejon, Korea

Tel : (042) 220-9530

Fax : (042) 221-0429