



12, 2, 1999 4

The Journal of the Korean Society of Fractures
Vol.12, No.2, April, 1999

= Abstract =

Results of Treatment for Fractures of the Talar Neck

**Kyung-Jin Song, M.D., Jung-Ryul Kim, M.D.,
Moon-Kyu Kim, M.D and Byung-Yun Hwang, M.D.**

*Department of Orthopedic Surgery, College of Medicine,
Institute for Medical Sciences, Chonbuk National University
Chonju, Korea*

The purpose of this investigation was to evaluate the clinical results and to suggest appropriate treatment modality in the treatment of the fracture of talar neck. Twelve patients who had the fracture of talar neck were managed from October 1988 to April 1996 and followed more than 24 months. We reviewed the results according to the method of treatment, and complications following surgery. Three were treated with closed reduction and casting, one with closed reduction and K-wire fixation, eight were treated with open reduction and internal fixation. The functional result was excellent in 58.3 % and good in 33.3 % according to Hawkins criteria. Overall, there were three complications, one with skin necrosis on the incision site and the other two with subtalar arthritis.

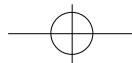
The treatment results were affected by the severity of trauma at the time of injury. Anatomical reduction by closed or open method, and stabilization with cast or rigid internal fixation could

:

634-18 (561-712)

Tel : (0652) 250 - 1760 Fax : (0652) 271 - 6538

* 1997 23
* 1997



facilitate early mobilization and minimize postoperative complications in the treatment of talar neck fractures.

Key Words : Talar neck, Fracture, Treatment

12

1988 10 1996 4
2 가 12
가 11 , 가 1
17 69 , 20-30
가 6
4 , 1 , 1
50% 16) 6 , 3
가
1988 10 1996 4
3 1 , 4 2
Hawkins¹⁶⁾ 1 3 , 2 6 , 3
Hawkins 1 3

Table 1. Analysis of cases.

Case No.	Age/ Sex	Cause of	classification injuries	Treatment	Complication
1	23/M	fall Down	I	CR & cast	
2	69/M	fall Down	I	CR & cast	
3	28/M	TA	II	ORIF with screws	
4	32/M	fall Down	II	ORIF with screws	
5	17/F	TA	IV	ORIF with screws	skin necrosis
6	36/M	TA	IV	ORIF with K-wires	traumatic arthritis
7	60/M	TA	I	CR & cast	
8	42/M	slip down	III	ORIF with K-wires	
9	31/M	TA	II	ORIF with K-wires	traumatic arthritis
10	46/M	direct injury	II	CRIF with K-wires	
11	38/M	TA	II	ORIF with K-wires	
12	25/M	fall down	II	ORIF with screws	

Table 2. Clinical results following to Hawkin 's scoring system

Type	Excellent	Good	Fair	Poor
I	3			
II	4	2		
III		1		
IV		1	1	
Total	7	4	1	

2 6 1 K 0.14 % 0.32 %
17)
가
(Table 1).
2 5 3 4
4 가
3 가
4.5 mm
2 1 3 K
6 8
가
Haliburton 15)
가
Mulfinger Trueta²¹⁾
가
Hawkins¹⁶⁾
가
Hawkins
1 3
가
, Penny Davis²²⁾
, 2 4 1
(Table 2),
12 11 (91.7 %)
가
2 1
가 , 3 1 4 1



438 • / 12 2

3

Titanium

가

6,8,16,17,18)

가50 % 가

가

Adelaar²⁾

가

Hawkins 1

가

, 2

3-

가

5 mm

, 5°

가

3

가

가

1

2

1

K

, 2

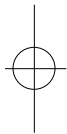
5

3,4

K

REFERENCES

- 1) , , , , :
28:291-299, 1993.
- 2) , , , :
, 28:2601-2609, 1993.
- 3) **Adelaar RS** : Fracture of the talus. *Instructional Course of Lectures*, 39:147-155, 1990.
- 4) **Adelaar RS** : Complex fracture of the talus. *Instructional Course of Lectures*, 46:323-338, 1997.
- 5) **Bobechko WP and Harris WR** : The radiographic density of avascular bone. *J Bone Joint Surg*, 42-B:626-632, 1960.
- 6) **Boyd HB and Knight RA** : Fracture of the astragalus. *Am Surg*, 45-A:51-68, 1963.
- 7) **Canale ST and Kelly FB.Jr** : Fracture of the neck of the talus. *J Bone Joint Surg*, 60-A:143-156, 1978.
- 8) **Coltar WD** : Aviator 's Astragalus. *J Bone Joint Surg*, 34-B:546-566, 1952.
- 9) **Comfort TH, Behrens F and Gaither DW** : Long-





- term results of displaced talar neck fractures. *Clin Orthop*, 199:81-87, 1985.
- 10) **Daniel TR and Smith VW** : Talar neck fractures. *J Foot Ankle*, 14:225-234, 1993.
- 11) **Dennis MD** : Blair tibiotalar arthrodesis for injuries to the talus. *J Bone Joint Surg*, 34-B:545-566, 1952.
- 12) **Dunn AR, Jacobs B and Campbell RD** : Fracture of the talus. *J Trauma*, 6:443-448, 1966.
- 13) **Gelberman RH and Mortensen WW** : Arterial anatomy of the talus, *J Foot Ankle*, 4:64, 1983.
- 14) **Gilquist J, Oretop N and Stensen A** : Late results after vertical fracture of the talus. *Injury*, 6:173-179, 1974.
- 15) **Haliburton RA, Sulliran CR, Kelly PJ and Peterson LFA** : The extra-osseous and intraosseous blood supply of the talus. *J Bone Joint Surg*, 40-A:1115-1120, 1958.
- 16) **Hawkins LG** : Fractures of the neck of the talus. *J Bone Joint Surg*, 52-A:991-1002, 1970.
- 17) **Kenwright J and Talyor RG** : Major injuries of the talus. *J Bone Joint Surg*, 52-B:36-48, 1970.
- 18) **Miller OL and Baker LD** : Fracture and fracture-dislocation of the astragalus. *Southern med J*, 32:125-136, 1939.
- 19) **Mindell ER, Cis EE, Kartalian G and Dzib JM** : Late results of injuires to the talus. *J Bone Joint Surg*, 45-A:221-245, 1963.
- 20) **Morris HD** : Aseptic necrosis of the talus following injury. *Orthop Clin N Am*, 5:177-189, 1974.
- 21) **Mulfinger GL and Trueta J** : The blood supply of the talus. *J Bone Joint Surg*, 52-B:160-167, 1970.
- 22) **Penny Jn and Davis LA** : Fracture and fracture-dislocation of the neck of the talus. *J Trauma*, 20:1029-1037, 1980.
- 23) **Sneppen O, Christensen SB, Krogsoe O and Lorentzen J** : Fracture of the body of the talus. *Acta Orthop Scand*, 48:317-324, 1977.