

편측안면경련에서 미세혈관감압술의 성적

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=Abstract=

Results of Microvascular Decompression in Hemifacial Spasm

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Objectives : Hemifacial spasm is painless uncommon disorder characterized by involuntary paroxysmal movement on one side of face. It is known that hemifacial spasm is mainly due to pulsatile compression by vessels at the root exit zone(REZ) of the facial nerve. Microvascular decompression at REZ of the facial nerve has become the standard treatment modality for hemifacial spasm. The authors have analyzed patients with hemifacial spasm treated with microvascular decompression to evaluate operation result and clinical course after operation.

Patients and Methods : From 1992 to 1999, 41 patients with hemifacial spasm underwent this operation. Retrospective analysis of operation results and clinical recovery patterns was done. The length of observation had been more than 6 months in all cases.

Results : The ratio of male to female was 1 : 1.4, and age at operation ranged from 24 to 66 years. Their mean age was 47.6 years and the mean preoperative duration of symptoms was 7.2 years. Most common offending vessels were AICA in 18 cases(48%) and second most common were PICA in 13 cases(31.7%). The rest of them were 3 case in vertebral artery, and 7 cases(13%) in multiple offending vessels. Patterns of improvement after surgery could be divided into 4 clinical types. There was complete recovery in 3 days after operation in 24 cases(58.6%, Immediate complete recovery). There was complete recovery in 3 days after operation, and symptom was recurred partially, which was gradually subsided in 2 weeks after operation in 4 cases(9.8%, Delayed complete recovery type I). There was partial recovery after operation and symptom was completely disappeared gradually in 6 months after operation in 7 cases(17.1%, Delayed complete recovery type II). Finally, there was partial recovery after operation, and symptom was somewhat remained after 6 months later(14.5%, Delayed partial recovery).

Conclusion : In conclusion, microvascular decompression for hemifacial spasm is a safe and reliable treatment modality with good results of improvement and there are 4 recovery patterns in clinical course after operation in our series. Therefore, follow - up observation after microvascular decompression is necessary to evaluate the operative results and complication, especially in the delayed resolved cases.

KEY WORDS : Hemifacial spasm · Microvascular decompression · Clinical recovery pattern.

서 론

(hemifacial spasm)

Gardner⁸⁾

25)29)

가

가 partial, failure 가 excellent partial 가 (hyperfunction) 가 .

가 29), 가 15)28), 20) 10)

botulinum A toxin 가 5). Gardner⁷⁾ 가

가 1960 Jannetta¹³⁾ 1970 가

가

41

대상 및 방법

1992 8 1999 8

41

2 Brain MRI(GE signal Horizon Advantage) source image(TR=33.3, TE=6.9) MRA

()

()

shredded Teflon felt

6

excellent, 75%

결 과

1. 성별 및 연령분포

41 17 ,

24 1 : 1.4

24~66 47.6 .

23 , 18 (Table 1).

2. 임상증상

7.2

platysma 가

40 1 7

(Table 1).

3. 방사선학적 진단

(Brain MRI) (source image)

(Brain MRA) 41 24

17

2

4. 원인혈관

18

48% 13

31.7%, 3 7.3% .

7 13%

Table 1. Characteristics of the patients

Characteristics	
Sex(M/F)	17/24(1 : 1.4)
Age(yrs)	24 - 66(mean 47.6)
Duration(yrs)	1 - 15(mean 7.2)
Laterality(Rt/Lt)	18/23
Status of spasm	
Typical	40
Atypical	1

가 5 8.2% (Table 2).

5. 수술결과

3 가 24
58.6%
17 가

Table 2. Compressing vessels on facial nerve

Vessels	Patients	
	No.	%
AICA	18	48.0
PICA	13	31.7
VA	3	7.3
VA + AICA	5	8.2
AICA + BA	1	2.4
VA + AICA +PICA	1	2.4
Total	41	100

AICA = Anterior inferior cerebellar artery
PICA = Posterior inferior cerebellar artery
VA = Vertebral artery
BA = Basilar artery

3 3 가 4
(9.8%) 3
6 가 7 (17.1%)
6 6 가 5
75% 가 1 (2.4%)
(12.1%), 75%

Table 3. Patterns of improvement after surgery in 41 patients

Recovery pattern	Patients	
	No.	%
Complete recovery		
Immediate (in 3 days after operation)	24	58.6
Delayed		
Type I	4	9.8
Type II	7	17.1
Incomplete recovery (%)		
75%	5	12.1
<75%	1	2.4
Total	41	100

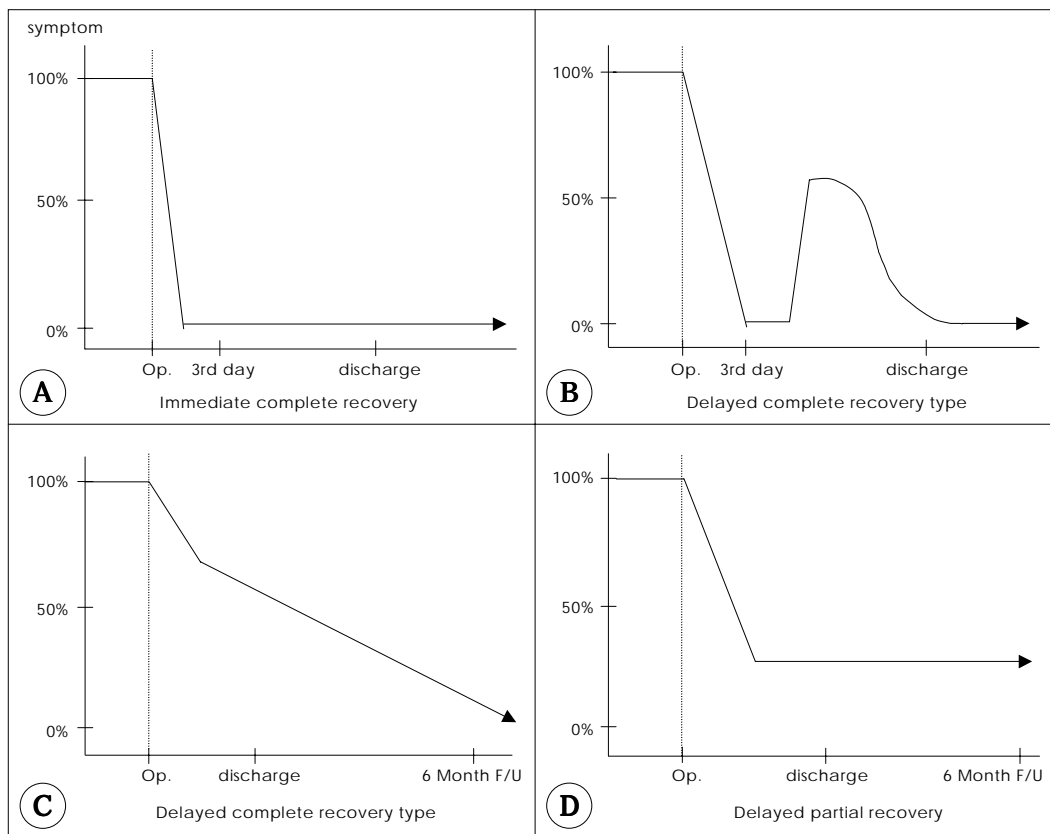


Fig. 1. Patterns of clinical courses after microvascular decompression in hemifacial spasm. A : Immediate complete recovery group ; Complete recovery in 3 days after operation. B : Delayed complete recovery Type I ; Complete recovery in 3 days after operation, and partial recurrence of symptoms which gradually subsides before discharge (2 weeks after operation). C : Delayed complete recovery Type II ; Partial recovery after operation and gradual disappearance of symptoms to complete disappearance after 6 months. D : Delayed partial recovery group ; Partial recovery after operation, and partially remaining symptoms.

(Table 3).

고 찰

4가 (Immediate complete recovery), 3 10 0.78
 가 (Delayed complete re-covery Type), 10 7.4 , 14.5
 가 6 (Delayed complete recovery Type), 29). Jannetta¹⁶⁾ 가 (elon-
 gated) 40~50
 가 (Delayed partial recovery) 40~50
 (Table 3, Fig. 1).

100%
 가 41 35 (Excellent result) 85.5%
 75%
 (Partial result)가 5 (12.1%) 75%
 가 1 (Poor result) 2.4% (Table 4).

6. 수술후 합병증

가 6 (14.6%) 가 0.8% Sprik²⁶⁾ 1%, Barker³⁾
 1 2 7 10 2 ,
 가 1 가 16)20)27-29)
 Sprik Wirtschafter²⁶⁾ 0.5% 2
 41 12 2
 가 1
 6 (Table 5).

Table 4. Outcome of Microvascular decompression in 41 patients

Result	Number of patients	Percentage
Excellent	35	85.5
Partial	5	12.1
Failure	1	2.4
Total	41	100

Table 5. Complications of microvascular decompression

Complication	Number of patients	Percentage
Facial weakness	6	14.6
(Delayed facial n. palsy)	2	4.8
Glossopharyngeal n. palsy	3	7.3
Hearing impairement(permanent)	1	2.4
CSF leakage	2	4.8
Total	12	29.1

(typical type) ,
 (atypical type)
 92% , 8%
 (vestibulochoclear ne-
 rve)
 millimeter 가
 (blepharospasm), (facial my-
 okymia) 5)29)

가 가

28)29)

15) 300
Barker
Fu-

Jannetta³⁾ Loeser Chen¹⁸⁾
kushima⁶⁾ , Wilkins²⁹⁾
가

14)

18 (48%),
13 (31.7%)

(blink reflex)
29)

20~40/sec arrhythmic discharge

(fasciculation)
가

(root exit zone)
29)

1947 netta

Campbell Keedy⁴⁾
Gardner, Jan-
29)

가 3가

botulinum toxin⁵⁾

가 (epaptic tr-
가

ansmission)²⁴⁾,
가

가 17)29),
가

가 kindling
17)21)22)

가 가 가

가 가

29)

1989 Adams¹⁾ 가 1~3mm phenol

(stylomastoid foramen)

가 10)12)29)

가 Hardy Rhoton⁹⁾

50
가 60%

20%

Gardner⁷⁾가 1960

Jannetta¹³⁾¹⁵⁾ 1970 Lovely¹⁹⁾ 985 28 가
 가 가 가 7 10
 13-15)29) 가 2 가 .
 가 75~90% (Brain stem au-
 Barker Jannetta³⁾ 782 91%, Huang¹¹⁾ 310 ditory evoked potential)
 88% 22)23)
 Jannetta¹⁵⁾ 가 (excellent) 가 35 , 75%
 가 (Partial) 5
 97.6% 35 11
 (flocculus) 19) 24),
 가 가
 15~35% 41
 18)29) 29.1% 가
 6 3가 가
 (air cell) 1 (2.4%)
 가 Huang¹¹⁾ 6
 2.1%, Iwakuma¹²⁾ 3.7%
 Huang¹¹⁾ 310 15
 (4.8%), Barker Jannetta³⁾ 648 47 (7.5%)
 14.6% 1
 가 , **결 론**
 가 41
 가 6~10 1) 48% 가

31.7% .
 13% .
 2) 97.6% .
 3) 가
 47가 가
 4) 41 12 (29.1%)
 1
 . 가 (6 ,
 14.6%) .
 , 47가
 .
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 • : 2001 3 6
 • :
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