

경추간판탈출증에 대한 전방경유 골유합술과 미세 전방경유 추간공 확대술의 치료 비교*

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= Abstract =

Comparison of Surgical Results between Anterior Cervical Interbody Fusion(ACIF) and Microsurgical Anterior Cervical Foraminotomy(MACF) for Cervical Disc Herniation

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Objective : Until recently anterior cervical discectomy with or without bone fusion has been widely used for the treatment of cervical disc herniation. After introduction of the microsurgical anterior cervical foraminotomy(MACF), there has been a tendency to preserve the functioning motion segment. But some worried about technical difficulties and complications such as injury to the vertebral artery. This study is to compare the short - term results of anterior cervical interbody fusion(ACIF) with that of MACF.

Methods : We reviewed medical records of 40 patients, 20 patients of ACIF performed during 30 months and 20 patients of MACF performed during 8 months.

Results : The average length of stay in the hospital was longer in cases of ACIF(12.9 days) than in those of MACF(7.1 days). The rate of the symptom relief within 1 day was higher in MACF(90%) than in ACIF(70%). The overall satisfaction experienced by the patients after surgery was higher in MACF(85%) than in ACIF(70%). The rate of the recommendation for surgical treatment to other people was higher in MACF(85%) than in ACIF(65%). But the differences were not significant statistically. The major complication was bone donor site pain in ACIF cases and neck and shoulder pain in MACF cases.

Conclusion : This data demonstrate that MACF is of value in the treatment of cervical disc herniation, which can be performed with safety and good outcome like conventional ACIF.

KEY WORDS : Cervical disc herniation · Microsurgical anterior foraminotomy · Interbody fusion.

서 론

foraminotomy⁵⁾

Cloward¹⁾

가

Mixer Barr¹¹⁾
keyhole

가

12

Jho⁷⁾

Hakuba²⁾

Verbiest¹⁶⁾,

Luschka

재료 및 방법

(Fig. 1).

		40		결 과	
		20	1995 4		
1997 10			MACF	20	가 9 가
	(anterior cervical	11	41	66	49.7
	interbody fusion ; ACIF)		20		가 9
1997 10	1998 6 8		(microsurgical anterior	11	1
	cervical foraminotomy ; MACF)	10	1	가 5 , 3	4 , 6
		2 , 1	5 , 2	1 , 10	3 .10
					5/6
	ACIF	10 ,	6/7	6 ,	4/5 1
		5/6	6/7		3
		MACF	ACIF	20	가
		10		32	63
		49.1			가 11 ,
1998 9	가			가 8 ,	
				1	10 1
				가 8 , 3	6 , 6 2 , 1 3 , 10
Chi - square	t - test	1	.15		
	p<0.05		3/4	2	5/6 6 , 6/7
			8 , 4/5		5/6
			가 2 , 5/6		6/7 가 2
			가		
5cm			MACF	20	4 14
				7.1	1
		6		가 18 , 1	가 1
	가	Luschka	1		(Fig. 2).
		Luschka	Lunsford ¹⁰⁾		
			(Excellent/Good)		
			(Fair)		
			(Poor)		
가		Luschka		3	10
surgicel		가		.17	1

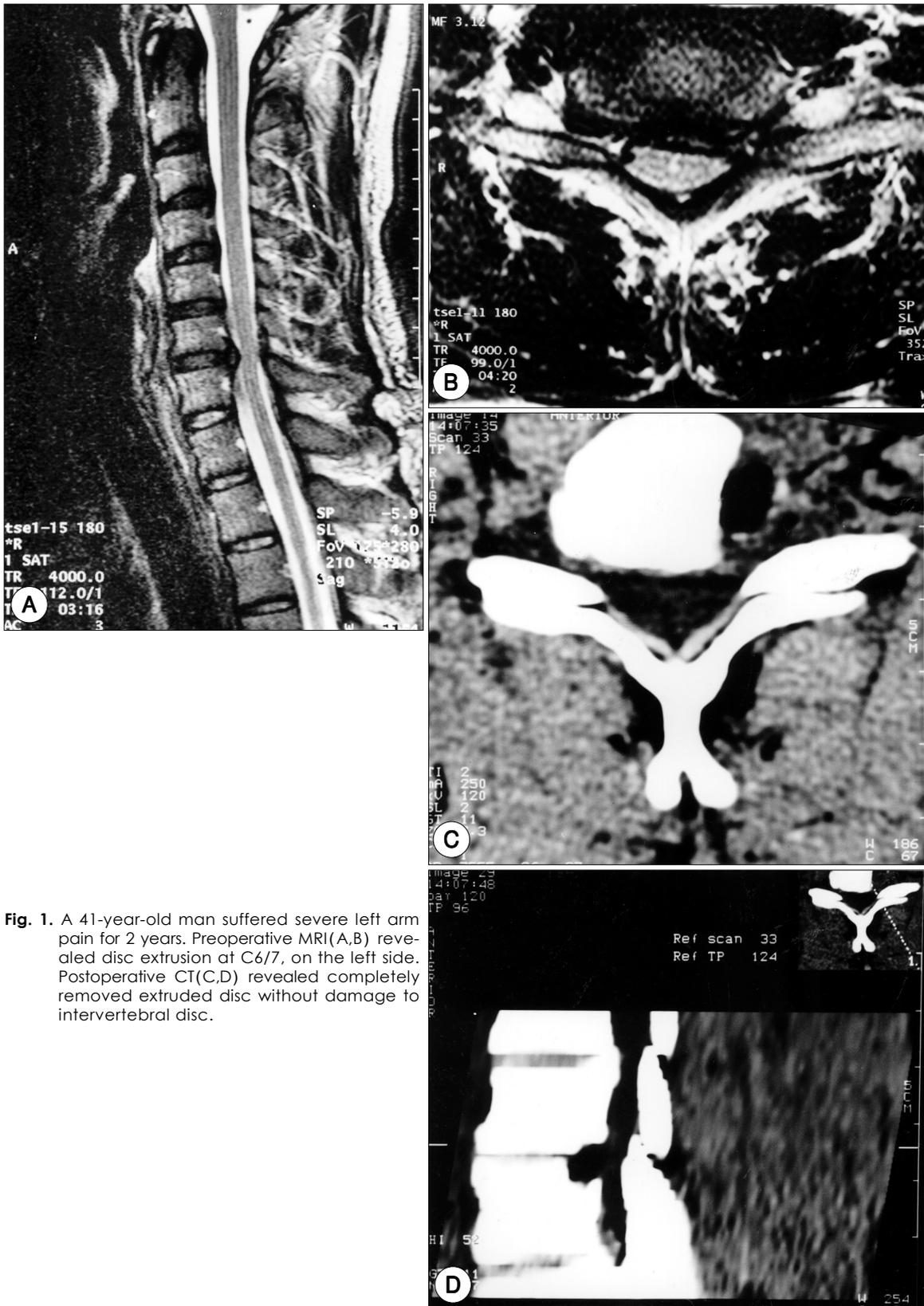


Fig. 1. A 41-year-old man suffered severe left arm pain for 2 years. Preoperative MRI(A,B) revealed disc extrusion at C6/7, on the left side. Postoperative CT(C,D) revealed completely removed extruded disc without damage to intervertebral disc.

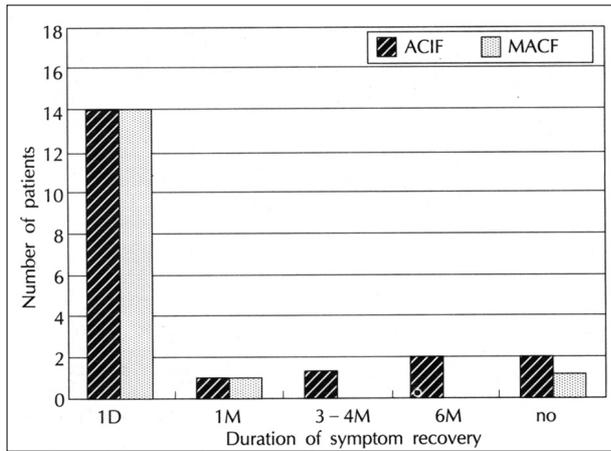


Fig. 2. Duration of symptom recovery : Radicular pain was relieved faster in MACF cases. But the difference is not significant statistically ($p>0.05$). Abbreviation : ACIF= anterior cervical interbody fusion MACF= microsurgical anterior cervical foraminotomy

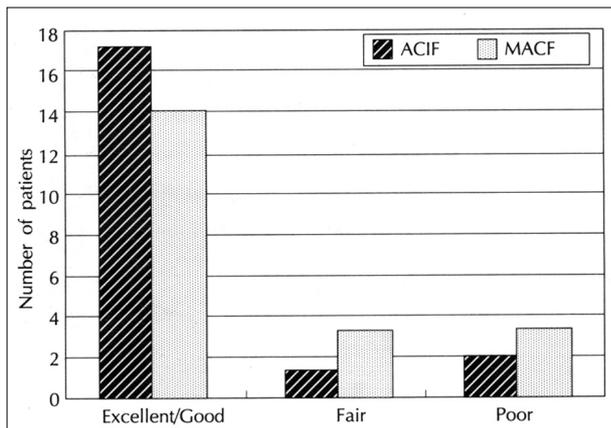


Fig. 3. The satisfaction of the patients after operation. The difference is not significant ($p>0.05$).

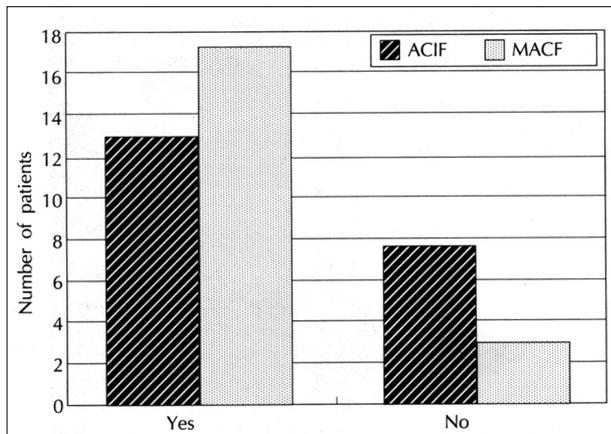


Fig. 4. For the question of recommendation of the operation to other people, 65% of the ACIF cases and 85% of the MACF cases answered as "yes". Among 7 patients who will not recommend the ACIF procedure, 3 patients will refuse due to bone donor site pain.

(Fig. 3).

2 1 2 1

(Fig. 4).

3 1 2 가

1 가 가 6

3 가 1 가 6

(frozen shoulder) 2 1 1

. 2 . 1 1

1

(Table 1).

ACIF	20	7	25
	12.9		

1 14 1

가 1 , 3 4 가 1 , 6

가 2 2

(Fig. 2). 8 3

14 3

3

(Fig. 3). 20

7 5

2

(Fig. 4).

가 6 1 2

Table 1. Complications of the operation

ACIF	
Transient swallowing difficulty	1
Intermittent voice change	2
Pseudoarthrosis	1
Duration of the bone donor site pain (iliac crest)	6
Minimal for several days	
1 - 2 weeks	5
1 month	7
Persistent	2
MACF	
Transient swallowing difficulty	1
Intermittent voice change	2
Neck and shoulder pain	6
More severe than preoperative state	1
New developed neck pain	2
Frozen shoulder	1
Shoulder pain	1
Interscapular pain	1

14) 가
 3)9) 가
 6),
 3)9) .
결 론
 ACIF 20 MACF 40
 . ACIF MACF 20
 12.9 , 7.1
 1 14 ,
 18 . ACIF
 14 3
 13 . MACF
 17 2
 , 17
 . ACIF
 1 가 7 ,
 가 2 가 가 . MACF
 가 . MACF ACIF 가 6 가
 .
 • : 1998 12 29
 • : 1999 3 10
 • :
 700 - 310 194
 : 053) 250 - 7335, : 053) 250 - 7356

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