

Lumbar HIVD Associated with Spondylolysis

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– Abstract –

Study Design : This is a retrospective study determining the surgical result of lumbar HIVD associated with spondylolysis.

Objectives : To analyze the incidence of lumbar HIVD associated with spondylolysis and to compare the results of open discectomy for lumbar HIVD associated with spondylolysis to simple lumbar HIVD.

Summary of Literature Review : Lumbar HIVD associated with spondylolysis need be treated by spinal fusion.

Materials and Methods : Nine patients(5 males and 4 females) who had lumbar HIVD with spondylolysis, no instability, follow-up period of 1yr were identified out of 273 patients with lumbar HIVD, treated by open discectomy from March 1989 to Feb. 1999. The type of HIVD and level of spondylolysis were evaluated, the clinical symptoms and signs including SLR, motor deficit, sensory deficit, change of DTR and severity of radiating pain were periodically followed up on the predesigned protocol.

Results : The incidence of lumbar HIVD associated with spondylolysis is 3.7%. The recovery of back pain was 2.1 to 2.1 by visual analogue scale, radiating pain was 7.6 to 0.8. The recovery rate of SLR was 100%, motor deficit; 100%, sensory deficit; 85%, change of DTR; 40%. The clinical evaluation was excellent(2), good(6), fair(1).

Conclusions : According to the recovery rate of the clinical symptoms, the results of open discectomy for lumbar HIVD associated with spondylolysis without spinal instability and simple HIVD was not different. Therefore, we conclude that lumbar HIVD associated with spondylolysis need not be treated by spinal fusion.

Key Words : Spondylolysis, HIVD, Open discectomy

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* 2000

1997

Fredrickson⁴⁾

6%

가

60

70

가

가

가

visual analogue scale 0

10

가

,9 ,1 ,1 6 ,2

protocol

,6 ,3 ,6

3.7%

가

(9/273)

4-5

5

5

, 5 - 1

3

1

4 ,1

5

, 1

4,5

, 4-5

5 -

: 1989 3 1999 2 1

1

1

5

273

,1

5

, 3

, 1

.9

가

9

.

가

가 5 , 가 4

42.7 (30

7 (78%)

~64) ,

54.6 (15 ~114

, visual analogue scale

) .

가

2.1(0~8),

2.1(0~5)

(buttock pain)

9

, Kim 가 “ ” (100%)

visual analogue scale

가

Kim

가

“ ”

가

7.6(4~10)

0.8(0~3)

가

7 (78%)

,” “ ”

7

.

2 1

”

가

,” “ ”

가

1

6

,” “ ”

(67%)

6

가

8 (89%)

7

가

,

1

4

Table 1. Clinical features of HIVD with spondylolysis

No	S/A ^a	level	type	no. F/U ^b	laminectomy level	dis- turbance placement ^c	back pain	relieving		SLR	motor					DTR												
								pre	post		pre	post	pre	post	pre	post	pre	post	pre	post	pre	post						
1	M/55	L4-5	seq	E	114	L5	bilat	no	2	0	0/0	0/0	30/70	70/70	-3	0	0	0	0	0	0	0	0	3	3	2	2	
2	M/40	L4-5	prot	G	41	L5	bilat	no	3	2	0/2	0/2	50/30	60/60	0	0	0	0	-1	0	-1	0	0	0	0	0	2	2
3	F/64	L5-S1	seq	G	15	L4	bilat	no	3	2	8/0	1/0	30/70	70/70	0	-1	-1	0	0	0	-1	-2	-1	2	2	0	2	
4	M/44	L5-S1	seq	G	108	L4,5	bilat	no	0	3	10/0	0/0	30/60	50/60	-1	-1	-1	0	0	0	0	-1	-1	2	2	1	1	
5	F/34	L4-S1	prot	G	31	L5	bilat	no	0	2	5/0	2/0	30/70	70/70	-2	0	0	0	0	-1	0	-1	0	1	2	2	2	
6	M/38	L2-3	stabil	P	15	L5	bilat	no	0	5	8/0	0/2	60/60	60/50	0	0	0	0	-1	-1	-1	-1	-1	2	1	2	1	
7	M/33	L5-S1	prot	G	36	L5	bilat	no	8	2	4/0	0/0	70/70	70/70	0	0	0	0	0	-1	0	-1	0	2	2	1	1	
8	F/50	L4-5	seq	E	65	L5	bilat	no	3	2	9/0	0/0	20/60	60/60	-3	0	0	0	0	-1	0	-1	0	0	0	0	2	2
9	F/57	L4-5	seq	G	65	L5	bilat	no	2	0	0/9	0/0	60/50	60/60	-3	0	-1	0	0	-2	-1	-3	0	0	0	0	2	2

^a Sex/Age. ^b Follow up (months). ^c Both side (bilateral). ^d preoperative & postoperative displacement. ^e preoperative. ^f postoperative. ^g excellent. ^h good. ⁱ fair. ^j poor. SLR: straight leg raising test(angle). DTR: deep tendon reflex. Seq: sequentiated. Prot: protrusion. Stab: subligamentous intrusion.

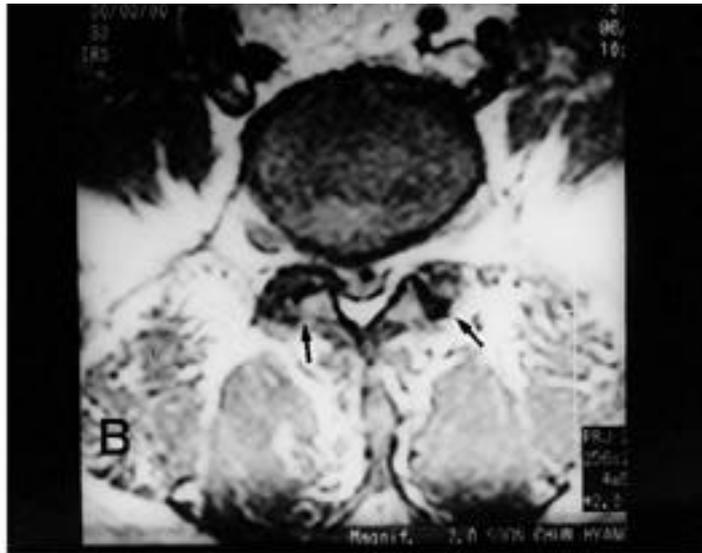


Fig. 3-A, B. T2 weighted sagittal and axial MR images show the herniated intervertebral disc at L4-5, L5-S1 level and a low signal intensity area in the left pars interarticularis of L5 (arrow head).

2가

Tibrewal ¹⁷⁾

(segmental hypermobility)

(Fenetration)

가

Gill ⁶⁾

51

39

가

12

가

1993 Suzuki ¹⁶⁾
10

35

1993 Peter

가 가

(level)
99 19 (19%)
, 19 6 grade I

Cauchoix ³⁾ 520
9 (1.7%)

¹¹⁾ 1966 Henderson ⁸⁾

, Gill Frymoyer ⁵⁾

가

18%

가
 가 Benini¹¹⁾
 , Markwalder¹²⁾ plastic jack-
 et
 (articular nerve)
 Herron¹⁰⁾
 97
 3.7%
 가
 가

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