

## Long Term Results of the Selective Spinal Nerve Root Block for the Herniated Lumbar Intervertebral Disc

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### – Abstract –

**Study Design:** A retrospective study.

**Objectives:** To access the 5-year outcomes of patients with sciatica, not caused by spinal stenosis, spondylolysis, spondylolisthesis or congenital deformity, but by a lumbar herniated intervertebral disc (HIVD), treated by a selective nerve root block (SNRB). A review of the alternative treatments, during the follow up period, is also presented.

**Summary of Literature Review:** Controversy exists about the therapeutic effects, particularly the long-term effects of a SNRB, in sciatica caused by a lumbar HIVD.

**Materials and Methods:** SNRB was performed on a total of 288 patients, diagnosed with a lumbar HIVD, through the clinical manifestations and physical and radiological findings, including MRI, between Jan. 1992 and Dec. 1997. Of the 288 patients, the 79 that underwent SNRB treatment only, and were minimally followed up for five years, were reviewed. The type of HIVD was based on the MRI findings, and the results of the SNRB were analyzed, with regard to the presence or absence of a relapse, the other treatments for recurrent or remnant symptoms following the SNRB, return to previous daily living and working activities and the degree of subjective symptomatic improvement, as assessed by a chart review, or an out patient department follow up or a telephone interview.

**Results:** With regard to the HIVD, there were 17 cases of bulging type (21.5%), 37 of protrusion (46.8%), 21 of extrusion (26.6%) and 4 of sequestration (5.1%) types. Medication and physical therapy was required in 13 cases (16.5%) and 35 cases (44.3%) used herbal medication and acupuncture. Thirteen of the 79 cases relapsed, and 10 were treated by microscopic discectomy. SNRBs were reperformed in 3 cases. Twenty-three cases (29.1%) required no treatment. Fifty-six cases (84.8%) returned to their previous daily living and working activities.

**Summary:** As this study did not accurately evaluate the change in the natural history of a HIVD following a SNRB, a further prospective study is still required. However, a SNRB is still a valuable non-operative treatment method for the acute radicular pain associated with a HIVD.

**Key Words:** Herniated lumbar intervertebral disc (HIVD), Selective nerve root block (SNRB), Long term results

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2002

scale (0-no pain, 10-unbearable pain),  
가 (Kim 's criteriae) 가

가

1.

가 17 (21.5%), 37 (46.8%), 21 (26.6%)  
4 (5.1%)

1,2,516,22)

2.

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(20.3%) , 2 31 (39.2%), 3  
21 (26.6%) 4  
11 (13.9%) 2.6

3.

1992 1 1997 12 17 6 11  
37 11  
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6 21 6 11  
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가 288 1 3  
176 79 가 23  
112 5 가가 79 29.1%  
36.6 56 70.9% , 56  
(16~64 ) 13 (16.5%)  
35 (44.3%)  
5 (6.3%) 13 10  
3  
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4. Stanley<sup>18)</sup> CT 가 CT  
가  
13  
. Dooley<sup>7)</sup>  
가 가 56 (84.8%) ,  
3 (4.5%)  
, 가 CT ,  
5 (7.6%),  
2 (3.1%) .  
. Haueisen<sup>9)</sup>  
가

Kelman<sup>11)</sup> 1944 93% .  
116 62%  
81%  
Macnab<sup>13)</sup> 1971 80%<sup>17)</sup>  
<sup>21)</sup> .<sup>10)</sup>  
19 12  
(63.1%) 4 (21.1%)  
, 3 (15.8%)  
phospholipase A  
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가  
2,3,6,7,18,19,22)  
가 가 .  
가 29  
bupivacaine steroid  
20 가  
Krempen<sup>12)</sup> 가  
가 288 112  
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가 ,  
가 , iodine 가  
Haueisen<sup>9)</sup> 가 White<sup>24)</sup>  
2 73% 87%  
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. Ridley<sup>14)</sup>  
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1,2,5,16,22)

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|-----------------------|------------|-----------------------|-----------------------|---|
|                       | 가          |                       | Carette <sup>5)</sup> |   |
|                       |            |                       | 5                     |   |
|                       | 29.1%      |                       | 가                     |   |
| Buchner <sup>4)</sup> |            |                       | 2                     |   |
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| 6                     |            |                       | 가                     |   |
|                       |            | Steven <sup>20)</sup> |                       |   |
|                       | 가          |                       |                       |   |
|                       | 5          |                       |                       |   |
| 70%                   |            |                       |                       |   |
| 56%                   |            |                       |                       |   |
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|                       |            | 8,23)                 |                       |   |
|                       |            |                       |                       |   |
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|                       | 가          |                       |                       |   |
| 1.                    | 23 (29.1%) |                       |                       |   |
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| 2.                    |            |                       | 21                    | 6 |
| (28.6%)               |            |                       |                       |   |
| 3. 79                 | 13         |                       | 10                    |   |
|                       |            |                       |                       |   |
| 4. 56 (84.8%)         |            |                       | 가 가                   |   |

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