

Table 1 Clinical and DTI results of symptomatic nerve roots

| | Clinical | DTI | Nerve root block | DTI |
|-----------------|----------|-----|------------------|-----|
| single segment | 5 | 5 | 8 | 8 |
| double segments | 7 | 7 | 14 | 14 |
| three segments | 1 | 1 | 1 | 1 |
| L3 L | 3 | 3 | 1 | 1 |
| L4 L | 3 | 3 | 7 | 6 |
| L5 L | 4 | 4 | 12 | 11 |
| S1 L | 3 | 2 | 3 | 3 |
| L3 R | 1 | 1 | 1 | 1 |
| L4 R | 2 | 2 | 7 | 7 |
| L5 R | 3 | 3 | 10 | 9 |
| S1 R | 4 | 4 | 3 | 3 |

Table 2 Comparison of FA values of symptomatic and asymptomatic nerve roots

| segment | FA value | | | |
|---------|-------------|--------------|---------|--------------|
| | symptomatic | asymptomatic | P-value | Significance |
| L3 | 0.162±0.026 | 0.231±0.031 | 0.0035 | ** |
| L4 | 0.145±0.024 | 0.254±0.032 | 0.0024 | ** |
| L5 | 0.152±0.033 | 0.237±0.024 | 0.0014 | ** |
| S1 | 0.132±0.021 | 0.201±0.034 | 0.0017 | ** |

Note: Data are shown as mean±standard deviation. P<0.01, significant difference.

Independent samples t-test.

Table 3 Comparison of ODI, JOA, VAS-BP, and VAS-LP scores of patients at pre- and postoperation

| | pre-operation | 3month | 6months | Last time |
|-------------------|---------------|---------------|--------------|--------------|
| ODI scores | 37.25±18.54 | 12.45±5.64 ** | 10.75±3.36** | 9.86±2.35** |
| JOA scores | 15.21±2.38 | 23.84±1.35** | 25.34±2.25** | 25.52±1.84** |
| VAS-BP | 5.43±1.43 | 2.18±1.68** | 1.98±0.85** | 1.87±0.96** |
| VAS-LP | 6.23±1.05 | 2.13±1.06** | 1.96±0.76** | 1.94±0.65** |

Note: Data are shown as mean±standard deviation. **P<0.01, significant difference.

Independent samples t-test.

ODI, Oswestry Disability Index; JOA, Japanese Orthopaedic Association; VAS-BP, Visual Analog Scale-Back Pain; VAS-LP, Visual Analog Scale-Leg Pain

Table 4 Radiologic assessments of patients at pre- and postoperation

| | pre-operation | 3month | p-value | Significance |
|---------------|---------------|-------------|---------|--------------|
| Cobb,° | 25.64°±5.38° | 7.34°±2.39° | 0.0024 | ** |
| LL,° | -36.21±11.85 | -43.54±9.85 | 0.0074 | ** |
| SS,° | 26.48±7.98 | 33.76±8.14 | 0.0049 | ** |
| PT,° | 21.26±6.29 | 14.95±7.16 | 0.0019 | ** |

Note: Data are shown as mean±standard deviation. **P<0.01, significant difference.

Independent samples t-test.

LL, Lumbar Lordosis; PT, Pelvic Tilt; SS, Sacral Slope