# Microscopic Lumbar Foraminal Decompression via Wiltse Approach for Foraminal or Extraforaminal Stenosis : Risk Factor Analysis for Poor Outcome

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# Introduction

## Lumbar (extra-) foraminal stenosis

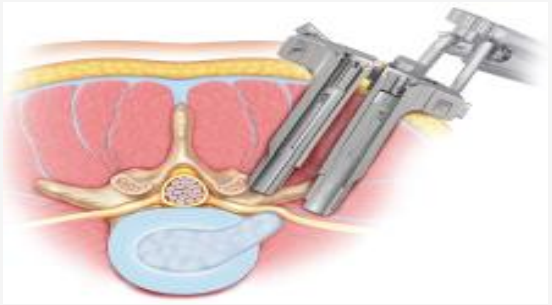
- The Wiltse approach

- facet sparing access (through the inter-transverse extra-foraminal corridor)

  : shorter operation time

  : less intraoperative blood loss

  : shorter hospital stay.



# Purpose

- The aim of this retrospective study
  - The purpose of this study was to present the outcome of the microscopic lumbar foraminal decompression via Wiltse approach for foraminal or extraforaminal stenosis.
  - We investigated risk factors associated with poor outcome of microscopic lumbar foraminal decompression.

# Material

## Patients demographics

- A total of 37 cases between February 2020 and February 2025.
- The ratio of men to women was 9:7 , Mean age was 64.8 years(range, 43–83 y)
- Follower up period was 19 months ( range 12-32 M)
- Divided into two study groups based on clinical outcomes

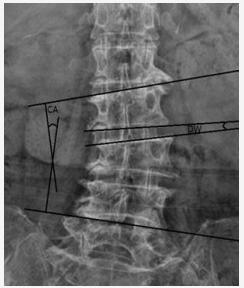
  - group 1 (8 patients with poor outcomes, postoperative VAS was over 3),

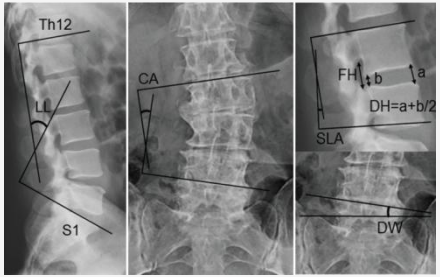
  - group 2 (29 patients with good outcomes, postoperative VAS was under 3).

# Method

## Radiological analysis

- Disc wedging (DW) angle
- Disc height (DH) and foraminal height (FH)
- Lumbar lordosis
- coronal Cobb angle (CCA)



# Method

## Clinical analysis

- Operative time
- Intraoperative blood loss
- Functional improvement, and complications

: ODI, back pain(visual analog scale), neurological deficit

# Result

## Radiological analysis

- Preoperative disc wedging (DW) angle : group 1 > group 2 (4.2 ± 1.0° vs 1.8 ± 0.2°, P < 0.01).
- Postoperatively, disc height (DH) and foraminal height (FH) decreased significantly in group 1
- Lumbar lordosis improved postoperatively in group 2 (21.3 ± 7.0 to 29.0 ± 7.0, P < 0.001)
- Postoperative Lumbar lordosis is a predictive factor for poor outcome.
- Decrease in DH or progression of DW was contributing to poor outcome.

# Result

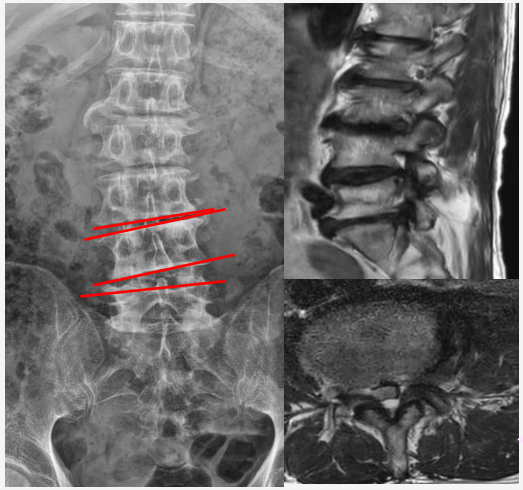
## Clinical analysis

- The mean operative time : 55 min (range, 85–100 min)
- The mean intraoperative blood loss :73 mL (range, 20–300 mL)
- Intraoperative complications

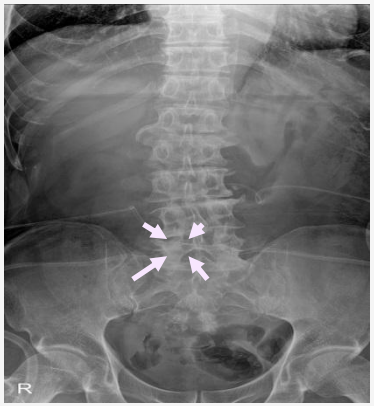
: one superficial wound infection

( debridement, primary closure over drains, and antibiotic therapy)

# case



Pre-op



Post-op

POD 5 months

- 63-year-old male patient had back and both leg pain.
- L4-5 disc wedging, Rt. L4-5 foraminal stenosis
- Poor outcome after foraminal decompression

: Progressing of scoliosis . DH loss and wedging

# conclusions

- *The microscopic lumbar foraminal decompression via Wiltse approach is safe and effective surgical option for treatment of foraminal and extraforaminal stenosis.*
- *Lumbar foraminal and extraforaminal stenosis presenting with large DW and small lumbar lordosis should be excluded from surgical indications for microscopic lumbar foraminal decompression..*