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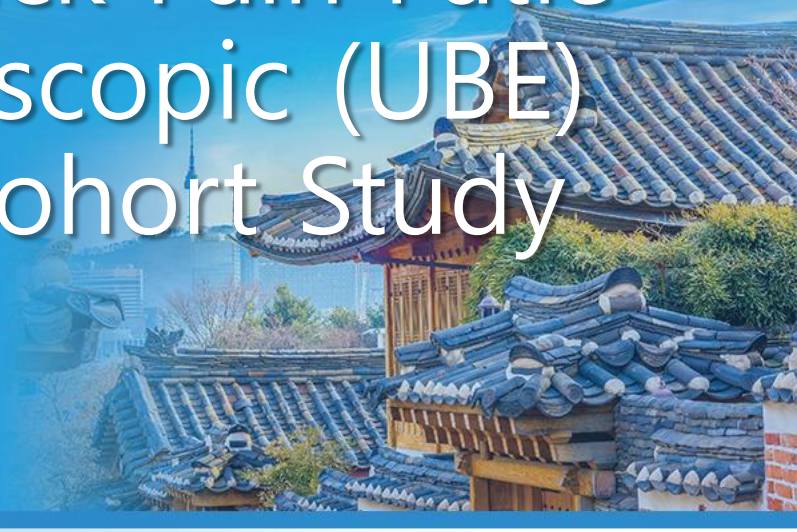
Clinical Profile of Chronic Low Back Pain Patients after Unilateral Biportal Endoscopic (UBE) Spine Surgery: A Retrospective Cohort Study



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INTRODUCTION

Chronic low back pain (CLBP) is a leading cause of disability globally.

It significantly affects quality of life and productivity.

Surgical intervention is considered when conservative management fails

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Unilateral Biportal Endoscopic(UBE) spine surgery is a minimally invasiv e technique offering improved visualization and reduced tissue trauma.

OBJECTIVES

GENERAL OBJECTIVE

To determine the functional outcomes and complication rates of chronic low back pain patients who underwent UBE spine surgery.

SPECIFIC OBJECTIVES

1. Demographic profile
2. Etiology of Chronic low back pain
3. Functional Outcome of Chronic low Back Patients after Unilateral Biportal Endoscopic (UBE) Spine Surgery using Oswestry Disability Index (ODI) and Visual Analog Scale (VAS)
4. Level of Significant difference of Functional Outcome of Chronic low Back Pain Patients underwent UBE Spine Surgery Pre-operative and post operatively
5. Complication rate of Chronic low Back Pain Patients after UBE Spine Surgery

METHODOLOGY

Study Design

A Retrospective cohort study.

Study Population

Patients with chronic low back pain secondary to lumbar stenosis, lumbar disc herniation, or degenerative disc disease.

Setting

Private Hospital in the Philippines

Sample size

56 patients

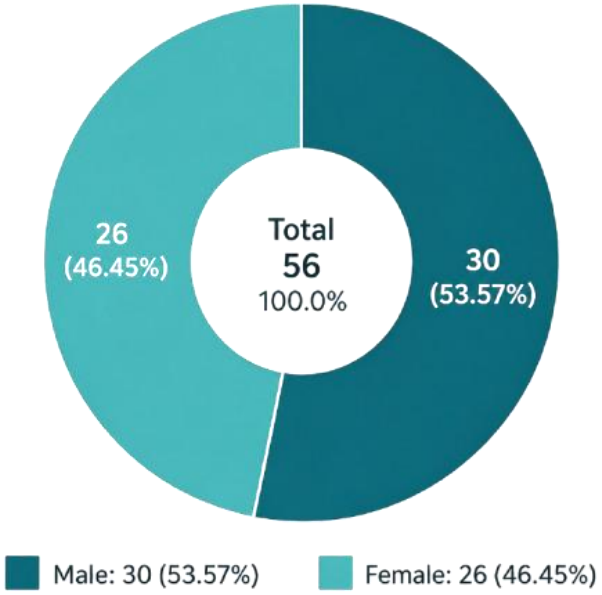
Data Collection

Pain and disability assessed using Numerical Rating Scale (NRS) and Oswestry Disability Index (ODI), preoperatively and at follow-up.

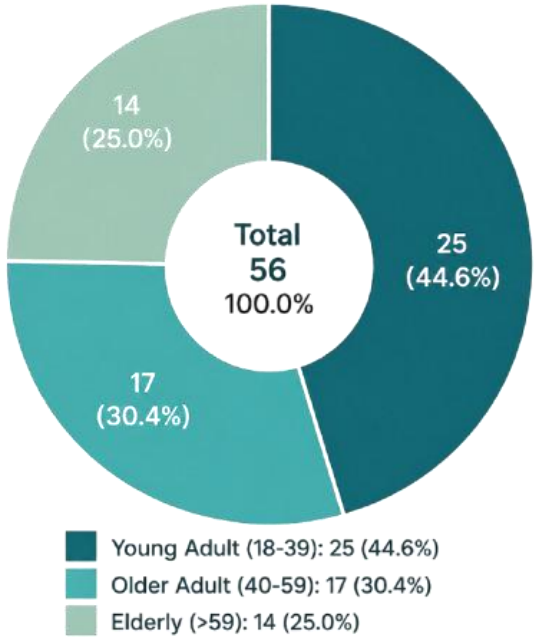
Postoperative complications were recorded and analyzed.

RESULTS - Demographics

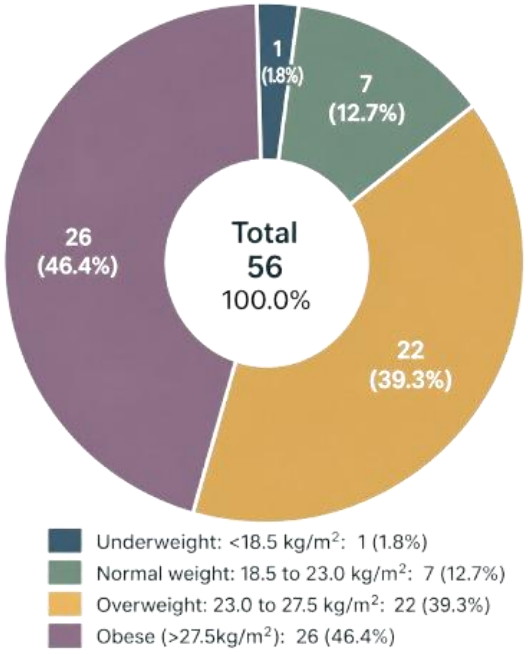
Sex



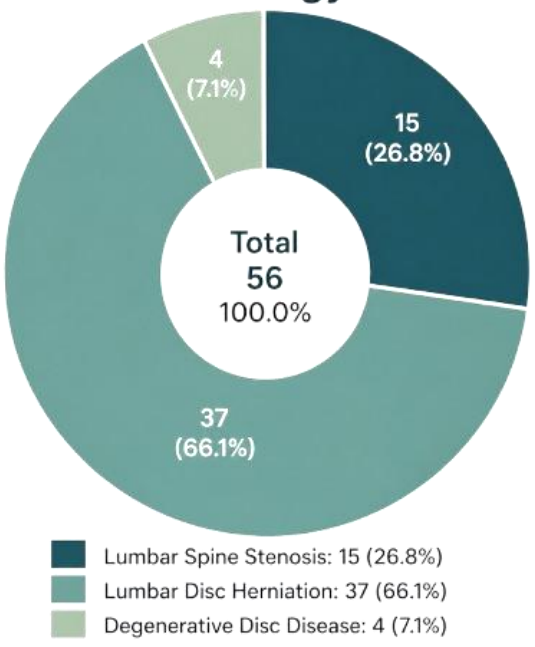
Age (in years)



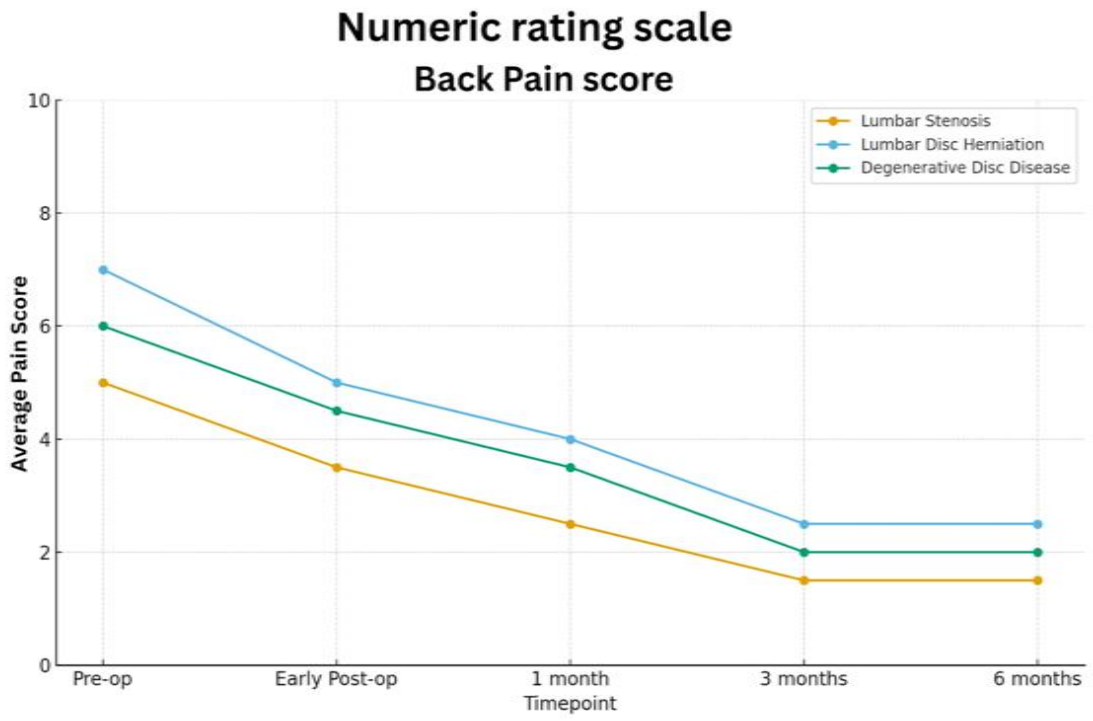
BMI

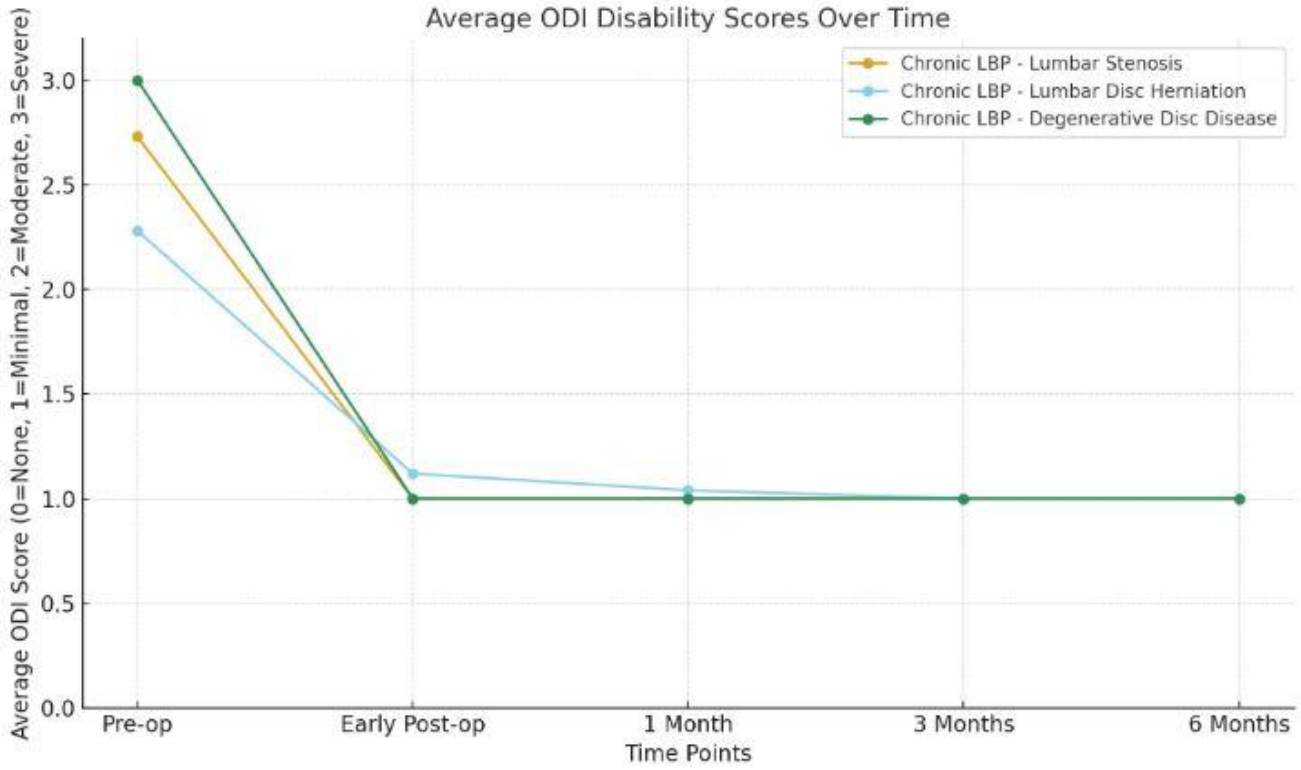


Etiology



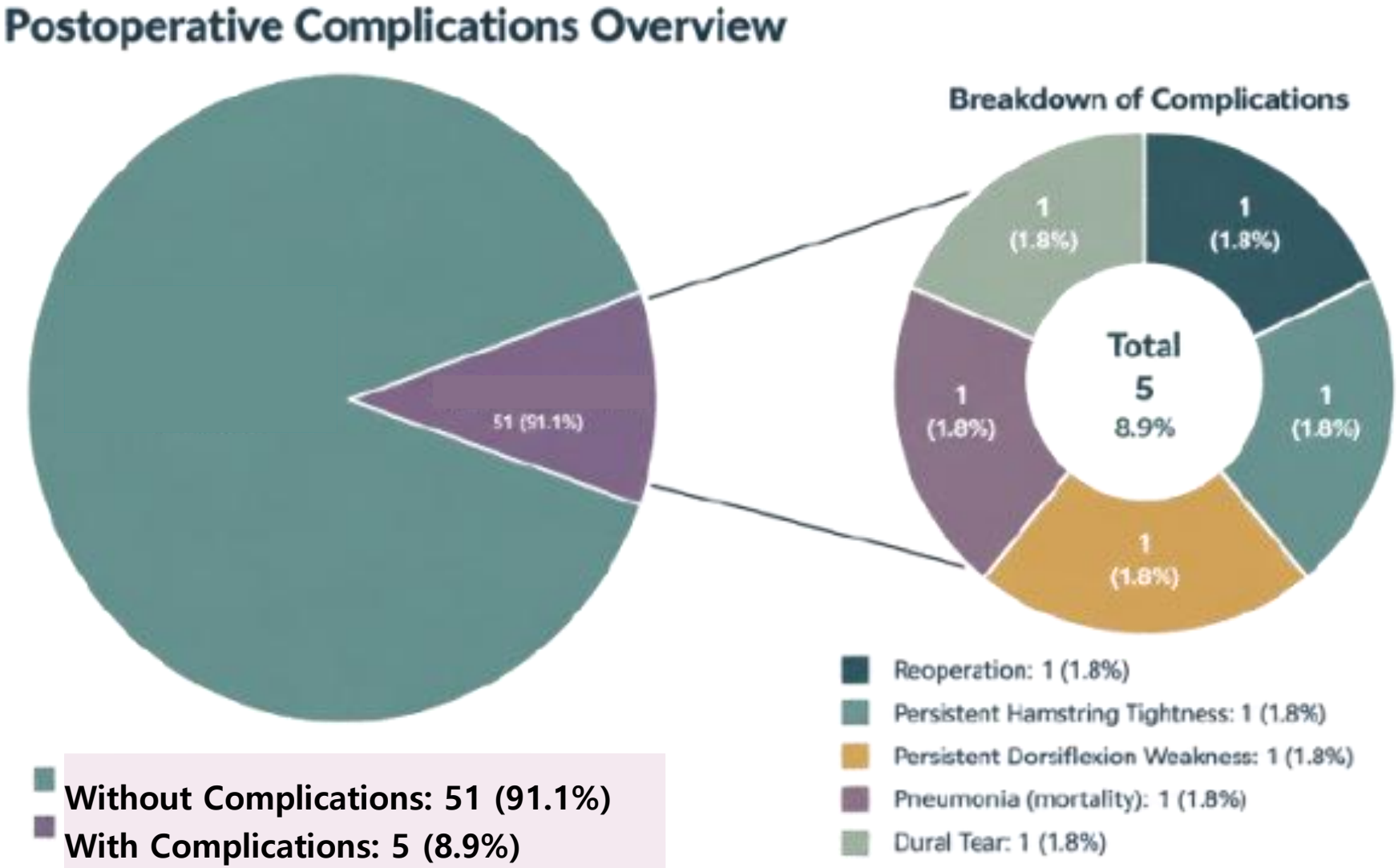
RESULTS - Clinical Outcomes





All groups demonstrated significant improvements in pain and functional status after UBE. Patients with lumbar disc herniation achieved t he greatest immediate reduction in Numerical rating scale score and ODI scores, while those with degenerative disc disease showed the most sustained long-term improvement. Patients with lumbar stenosis had steady but gradual functional gains. The overall complication r ate was 8.9% (5 of 56 cases), consisting of one reoperation, one case of hamstring tightness, one case of dorsiflexion weakness, one nerv e injury, and one pneumonia-related mortality. Most complications were minor and manageable.

Complications



DISCUSSION

UBE spine surgery significantly improved pain and functional outcomes in patients with lumbar stenosis, disc herniation, and degenerative disc disease.

Patients showed sustained improvement in NRS and ODI scores up to 6 months postoperatively, with a low and manageable complication rate (8.9%).

Findings support UBE as a safe and effective minimally invasive alternative to conventional spine surgery, although larger long-term studies are recommended.

CONCLUSION

UBE spine surgery significantly reduced pain and improved functional outcomes in patients with chronic low back pain.

Disc herniation and degenerative disc disease patients showed the greatest improvement, with a low and manageable complication rate (8.9%).

UBE is a safe and effective minimally invasive alternative to conventional spine surgery.

RECOMMENDATION

Conduct studies with larger sample sizes and longer fol low-up periods to evaluate long-term outcomes of UBE spine surgery.

Compare UBE with conventional open and other minim ally invasive spine procedures to further assess effectiv eness and safety.

Strengthen postoperative monitoring and rehabilitation programs to optimize patient recovery and minimize co mplications.

INTRODUCTION

OBJECTIVES

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METHODOLOGY

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METHODOLOGY

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