A CLINICAL OUTCOME COMPARISON OF TUBULAR MICRODISCECTOMY AND ENDOSCOPIC DISCECTOMY IN LUMBAR DISC HERNIATION

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INTRODUCTION:

Microdiscectomy is the gold standard in treating lumbar disc herniations (LDH). Several minimally invasive techniques have been developed including tubular microdiscectomy (TM) and endoscopic discectomy (ED). TM and ED use a surgical microscope and endoscope respectively. This study endeavours to compare the clinical outcomes of these two techniques.

MATERIAL & METHODS:

Fifty patients with lumbar disc herniation were included in this single-centre retrospective cohort study. These patients were treated with either TM or ED at our centre from 2016 to 2019. Data on patient demographic characteristics were collected. Clinical outcomes were determined with Visual Analog Scale (VAS), Owestry Disability Index (ODI) and Modified MacNab criteria.

RESULTS:

A total of thirty-four patients underwent TM. Sixteen patients were treated with ED. Both groups showed significant improvements post-operatively in VAS and ODI scores (Table 1 and 2). Majority of patients also reported excellent and good outcomes in the Modified MacNab criteria. There were no statistical differences between both groups in clinical outcomes.

Technique		VAS Preop	VAS Postop
ED	Mean (±SD)	8.25 (±1.438)	2.00 (±2.477)
TM	Mean (±SD)	8.32 (±2.056)	1.85 (±2.350)

Table 1. Clinical outcome scoring (Visual Analog Scale)

Technique		ODI% Preop	ODI% Postop
ED	Mean (±SD)	58.213 (±17.2742)	19.094 (±16.2434)
TM	Mean (±SD)	55.126 (±18.9591)	16.076 (±17.2105)

Table 2. Clinical outcome scoring (Owestry Disability Index)

DISCUSSION:

Minimally invasive lumbar decompressive surgeries show good clinical outcomes in pain control and functionality, due to less tissue trauma. They also reported reduced intraoperative blood loss and hospital stay. Complications, though rare, are dural tear, recurrence and infection.

CONCLUSION:

Tubular microdiscectomy and endoscopic discectomy are both equally good and reliable treatment modalities in treating LDH.

REFERENCES:

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