COMPARATIVE STUDY OF OUTCOME IN UNIPORTAL ENDOSCOPY VERSUS MICROSCOPIC TUBULAR SURGERY IN LUMBAR SPINE DISEASE – A 27-MONTH MULTI CENTRE ANALYSIS IN EASTERN SABAH HOSPITALS

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Background:

Lumbar spine pathologies frequently cause severe debilitating low back pain and radicular symptoms, which can be challenging to treat conservatively. Surgical interventions become necessary for managing symptomatic cases, with two main techniques gaining prominence: Uniportal Endoscopic Lumbar Surgery and Microscopic Tubular Surgery.

Objectives:

This study conducted at Hospital Tawau and Hospital Lahad Datu compared Uniportal Endoscopic Lumbar Surgery and Microscopic Tubular Surgery. Patients with disc pathologies and spinal stenosis were evaluated for post-operative pain, duration of surgery, return-to-work potential, complications and length of hospital stay.

Materials and methods:

Retrospective review of the patients admitted from October 2021 to December 2023 enrolled 72 patients with a mean age of 40-years-old with male predominance. Twenty-five underwent endoscopic surgery (20 transforaminal, 5 interlaminar), and 47 received microscopic surgery. Pain relief was measured using VAS scores and return-to-work measured using SF-36.

Results:

Mean hospital stay is shorter in endoscopic group compared to the tubular group, 1 day versus 5 days (p=.0021). Return to work potential is better in endoscopic group with a mean score of 76% vs tubular group 50% P=0.0046. Endoscopic group has better pain relief post-operatively with VAS of 3 as compared to VAS of 5 in a tubular group. Mean surgery duration in endoscopic group was 97 mins compared to 171 mins in a tubular group p=0.0034. There were three complications in tubular group (dural tear, infection) compared with one in endoscopic group (dural tear).

Conclusion:

The endoscopic surgery has statistically significant less (pain, blood loss, complications) and a shorter hospital stay. In addition, it provides improved surgical visibility and is done under local anaesthesia.