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**Title:** Laryngeal Suspension in Major Glossectomy: Impact on Functional Outcomes

### **Body:** INTRODUCTION

Major glossectomy impacts speech and swallowing. Laryngeal suspension (LS) using a hyomandibular stitch facilitates laryngeal elevation and hyoid advancement. This study evaluates the functional outcomes of LS in patients undergoing major glossectomy.

### MATERIALS AND METHODS

A retrospective analysis of 55 patients who underwent major glossectomy via the pull-through approach (January 2022–January 2024) was conducted.

### RESULTS

#### Patient Distribution:

- Total/Near-Total Glossectomy (TG): 34 patients.
- Hemi/Extended Hemiglossectomy (HG): 21 patients.
- LS performed on 40 patients (TG: 27, HG: 13).

#### Aspiration Rates:

- TG: 44% (LS) vs. 75% (no LS).
- HG: 23% (LS) vs. 38% (no LS).

#### Oral Feeding Initiation (<4 months):

- TG: 67% (LS) vs. 13% (no LS,  $p=0.007$ ).
- HG: 85% (LS) vs. 75% (no LS).

#### Laryngeal Elevation (Modified Water Swallow Test):

- TG: 52% (LS) vs. 25% (no LS).
- HG: 92% (LS) vs. 63% (no LS,  $p=0.011$ ).

#### Videofluoroscopy Study (VFSS):

Laryngeal elevation was measured as the distance between the lower border of C2 and the anterior cornu of the air column. Two-thirds of patients with LS achieved favorable scores, compared to one-third without LS.

#### Conclusion-

Laryngeal suspension via a hyomandibular stitch significantly improves swallowing function and laryngeal elevation in major glossectomy patients. The technique demonstrates superior functional outcomes, including reduced aspiration rates and expedited initiation of oral feeding.

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