The Role of Elective Neck Dissection in Salvage Total Laryngectomy

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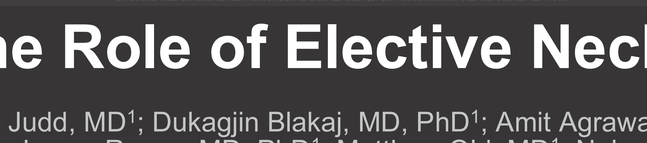
Background

- **Salvage total laryngectomy** (TL) is performed after local recurrence following radiation for laryngeal/hypopharyngeal cancer
- Rates of nodal positivity are variable[1-3]
  - Recent meta-analysis found **occult nodal positivity: 11%**[1]
  - Unknown impact on **regional recurrence (RR)** rate and **survival**
- Higher **risk of complications from neck dissection** in a radiated field
- Significant debate on the role of elective neck dissection (ND) with salvage TL[1-3]

Methods

- Retrospective chart review
- Salvage TL for residual or recurrent local laryngeal/hypopharyngeal cancer



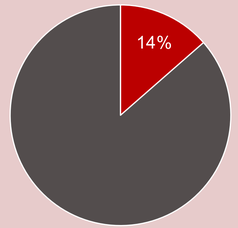
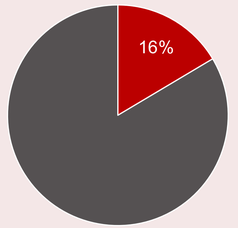
- Single comprehensive cancer center
- 2009 to 2023
- **Elective ND** performed at surgeon's discretion, <6 month follow-up
- Excluded: clinic-radiologically positive nodes

- Primary outcome: **regional recurrence**
- Secondary: rate of **successful surgical salvage after RR**

- Logistic and linear regression used to compare groups

Results

- **138 cN0 patients underwent salvage TL**
- 37% supraglottic and 42% glottic
  - No significant difference in neck management by subsite (p=0.09)
- **22% occult nodal metastasis**

Elective ND	Neck Observation
Regional Recurrence 	Regional Recurrence 
	p=0.884
Significantly lower time to regional recurrence 9.8 mo (4.5 – 15.2), ***p*=0.044**	18.6 mo (8.3-28.9)
	Trend of regional recurrence with thyroid cartilage invasion OR 2.87 (0.84-9.74), p=0.092
Improved surgical salvage rate after regional recurrence OR 12 (1.01-141). ***p*=0.048**	

- No difference in fistula rate: OR 1.27 (0.61-2.66), *p*=0.521
- No difference in regional recurrence in whole cohort based on tumor subsite: OR 1.21 supraglottic vs glottic (0.43-3.4), *p*=0.712.

Discussion

- Relatively high rate of occult nodal metastasis
- Ongoing data collection regarding complications from elective ND
- Regional recurrence rates appear similar between groups
- Yet, time to regional recurrence was significantly lower in the observation group
- Additionally, surgical salvage after regional recurrence was more likely after elective ND

Conclusion

- While elective ND may be associated with higher complication rate in a clinicoradiologic negative neck, elective lateral ND concurrent with salvage TL is associated with improved RR-free survival and improved rates of surgical salvage following RR.

References

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