

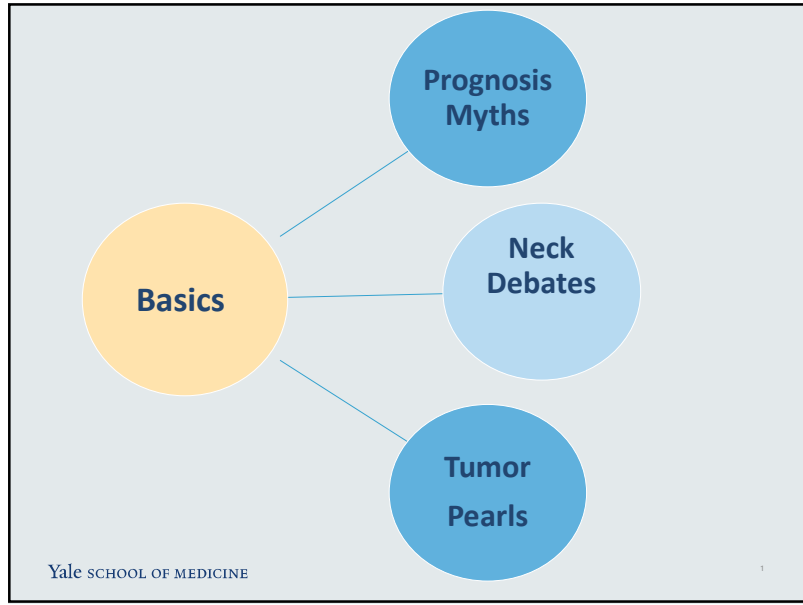
Oral Cavity Cancer
(20 Minute Crash Course for Advanced Learners)

Benjamin L. Judson, M.D.
Chief of Otolaryngology
Professor of Surgery

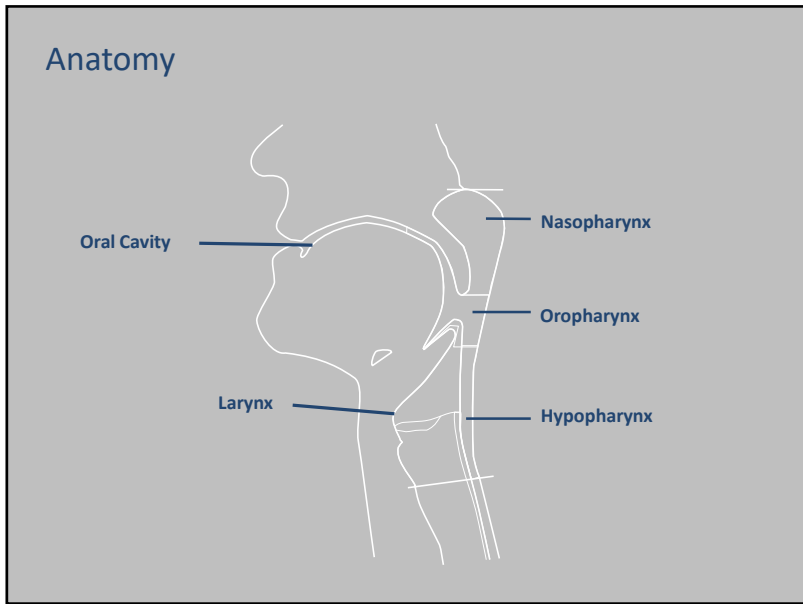
October 2, 2021

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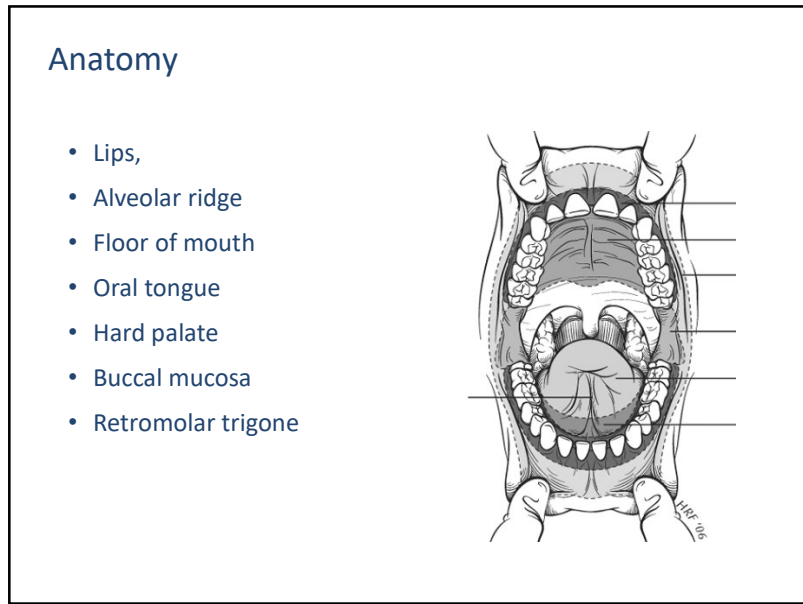
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Physical Examination



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AJCC Staging

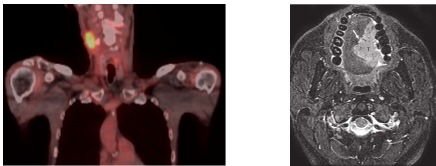
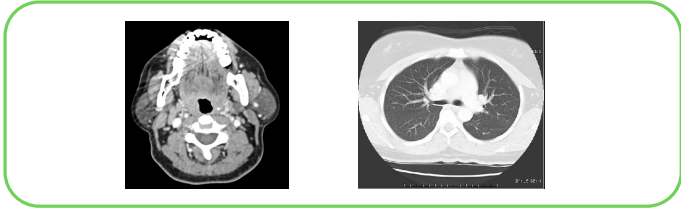
Cancer Stage	T Category	N Category	M Category
0	Tis	No	Mo
I	T1	No	Mo
II	T2	No	Mo
III	T1, T2 T3	N1 No, N1	Mo Mo
IVA	T1, T2, T3 T4a	N2 No, N1, N2	Mo Mo
IVB	Any T4b	N3 Any	Mo Mo
IVC	Any	Any	M1

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Imaging



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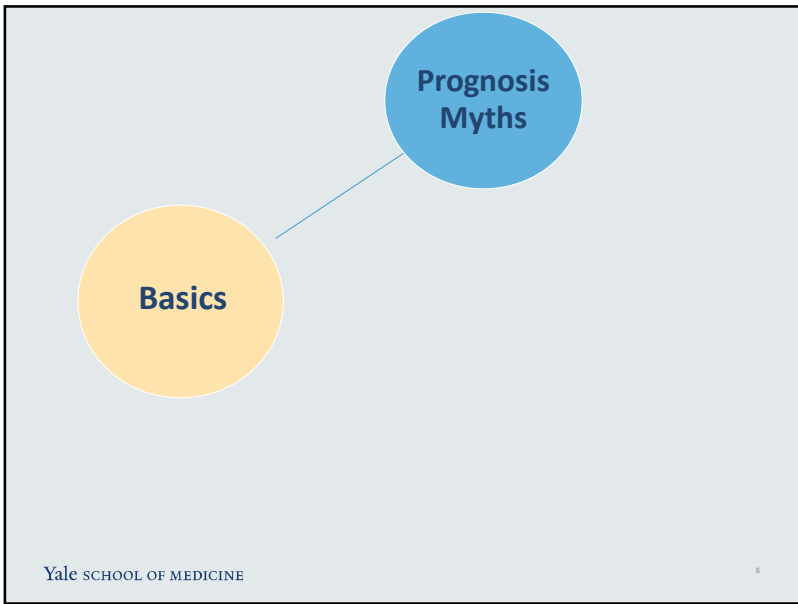
Take Aways

- Physical examination to clinically stage, start treatment planning, assess for synchronous tumors, and assess ability to tolerate treatment.
- Organize thinking about oral cancer around early stage versus advanced stage disease

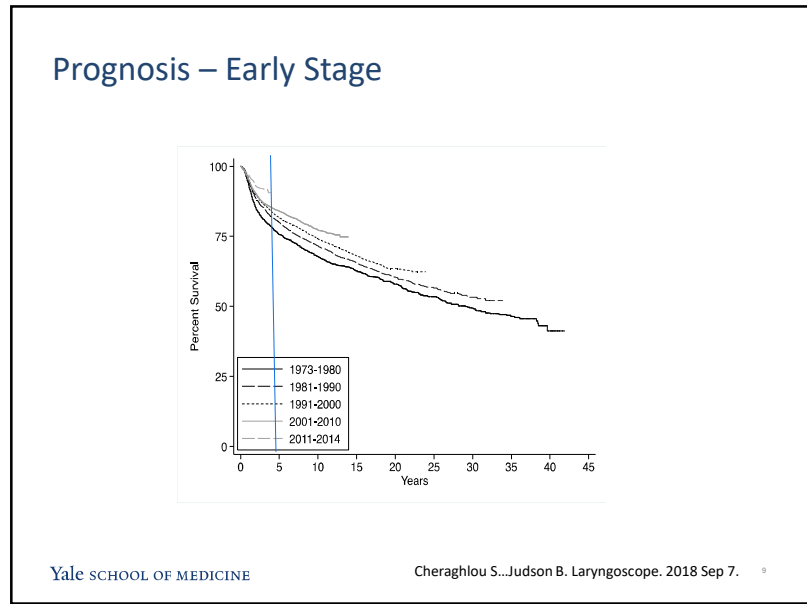
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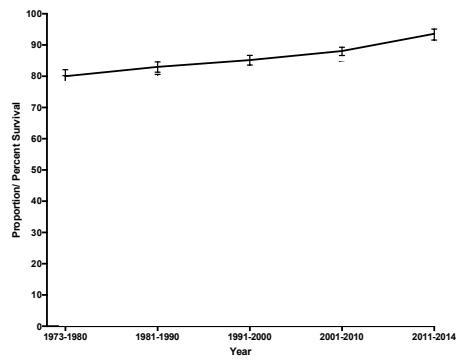


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Prognosis – Early Stage

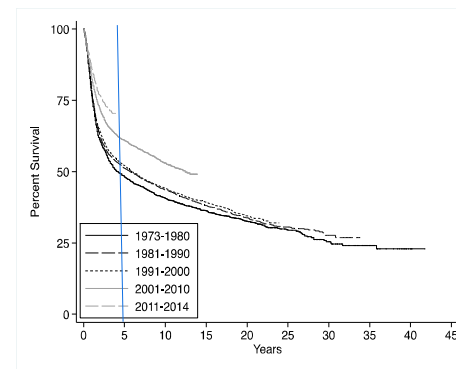


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Cheraghlou S...Judson B. Laryngoscope. 2018 Sep 7. 10

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Prognosis - Advanced Stage

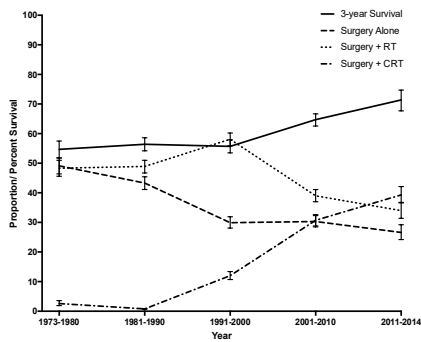


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Prognosis - Advanced Stage



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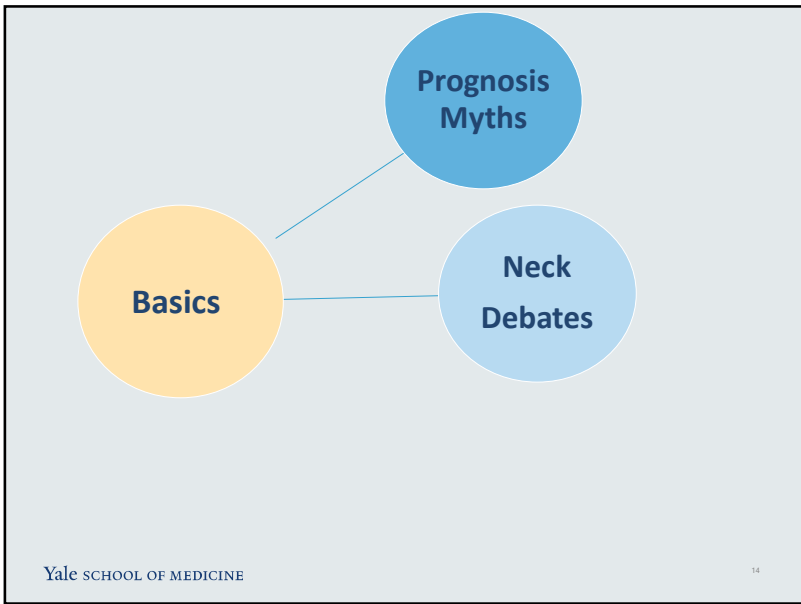
Take Aways

- Disease specific survival has been improving over the last 50 years
- Early oral cancer prognosis has improved with reduced use of radiation.
- Advanced oral cancer prognosis has improved with increased use of chemotherapy and radiation.

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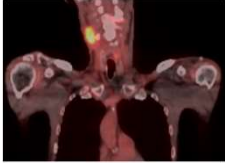
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Neck




MRND/Comprehensive

T3/T4
N0



≥ SOH ND/Selective





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Neck

T1/T2
N0

≥ SOH ND/Selective

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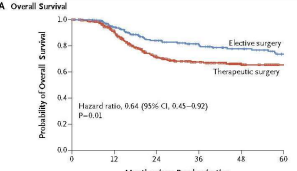
THE NEW ENGLAND JOURNAL OF MEDICINE

ORIGINAL ARTICLE

Elective versus Therapeutic Neck Dissection in Node-Negative Oral Cancer

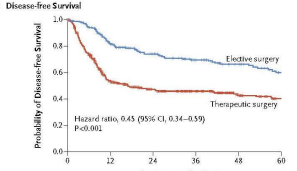
Anil K. D'Ouz, M.S., D.N.B., Rishi Vaidh, M.S., Neeti Kapre, M.S., D.N.B.,
 Mihir Chandekar, M.S., D.N.B., Sudheep Gupta, M.D., D.M.,
 Rohini Hawaldar, B.Sc., D.C.M., Jai Prakash Agarwal, M.D.,
 Gouri Panbrajya, M.S., D.N.B., Dewendra Chaukar, M.S., D.N.B.,
 Anuja Deshmukh, M.S., D.I.O., D.O.R.L., Shubhada Kane, M.D.,
 Supreeta Arya, M.D., D.N.B., D.M.R.D., Sarbani Ghosh-Laskar, M.D., D.N.B.,
 Parikaj Chaturvedi, M.S., F.A.I.S., Prithamesh Pai, M.S., D.N.B., D.O.R.L.,
 Sudhir Nair, M.S., M.Ch., Deepa Nair, M.S., D.N.B., D.O.R.L.,
 and Rajendra Badwe, M.S., for the Head and Neck Disease Management Group

A Overall Survival



No. at Risk	0	12	24	36	48	60
Elective surgery	243	205	143	110	86	67
Therapeutic surgery	253	207	129	109	86	74

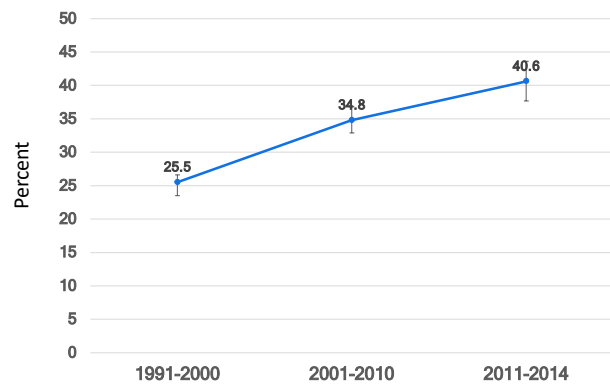
B Disease-free Survival



No. at Risk	0	12	24	36	48	60
Elective surgery	243	170	126	94	71	52
Therapeutic surgery	253	129	91	77	61	51

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Neck Dissection Rate in Early Oral Cancer

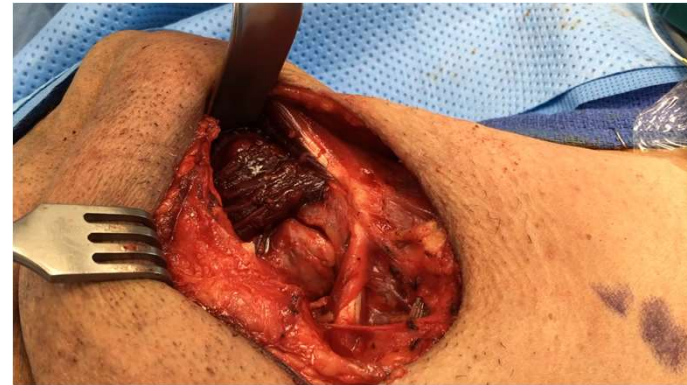


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Level I: perifacial lymph nodes

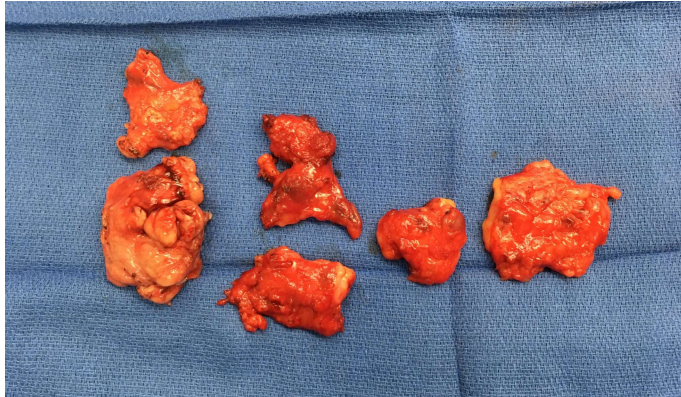


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Neck



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Nodal Yield is Associated with Prognosis

Clinicopathological parameters affecting nodal yields in patients with oral squamous cell carcinoma receiving selective neck dissection

Ali-Faisal Siddiqui¹, Martin Knaflitz¹, Andrea Grassioli¹, Hans-Joachim Niekamp¹, Uta Dreher¹, Joachim Zoller¹, Matthias Krippel¹
¹Department for Oral and Craniofacial Plastic Surgery, University of Cologne, Cologne, Germany
²Faculty of Medicine, University of Cologne, Cologne, Germany

ABSTRACT
Introduction: Nodal yield has been demonstrated as a strong prognostic marker for the prognosis in oral squamous cell carcinoma (OSCC). However, studies on the relationship of clinicopathological factors affecting the number of resected lymph nodes are rare. Objective: To assess whether patient-specific parameters affect nodal yield.
Methods and results: Retrospective chart review of 214 patients with treatment-naïve oral squamous cell carcinoma and subsequently primary resective neck dissection, who received an ipsilateral selective neck dissection (SND). Clinical data were analyzed with respect to the number of resected lymph nodes. The association between clinicopathological parameters and nodal yield was analyzed using multivariate regression analysis. Results: The mean nodal yield was 21.7 (range 0-60) lymph nodes. The number of resected lymph nodes was significantly associated with tumor size (p < 0.001), tumor stage (p < 0.001), and gender (p < 0.001). The number of resected lymph nodes was significantly associated with tumor size (p < 0.001), tumor stage (p < 0.001), and gender (p < 0.001). The number of resected lymph nodes was significantly associated with tumor size (p < 0.001), tumor stage (p < 0.001), and gender (p < 0.001).
Conclusion: The number of resected lymph nodes is significantly associated with tumor size, tumor stage, and gender. The number of resected lymph nodes is significantly associated with tumor size, tumor stage, and gender.

Nodal Yield and Survival in Oral Squamous Cancer

Abstract
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Original Research—Head and Neck Surgery

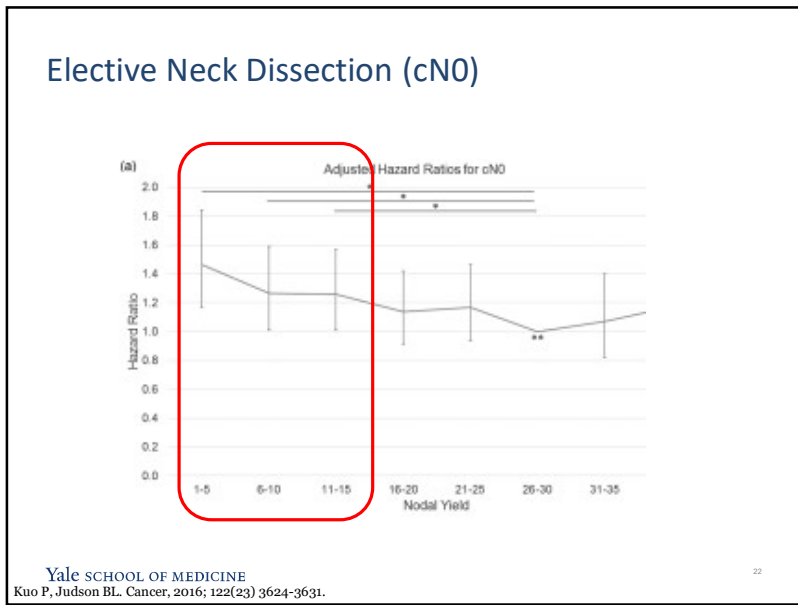
Lymph Node Yield as a Predictor of Survival in Pathologically Node Negative Oral Cavity Carcinoma

Aaron Lemieux, MA¹, Suraj Kataravetty¹, Bharat Raju, MD, MAS¹, Ryan Orsico, MD², and Charles Coffey, MD²

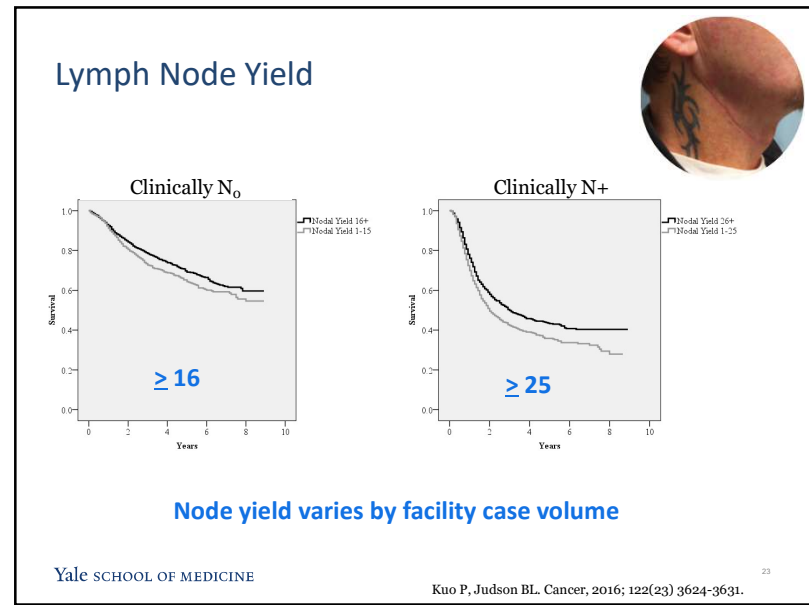
Lymph Node Count From Neck Dissection Predicts Mortality in Head and Neck Cancer

Abstract
Introduction: Lymph node count from neck dissection has been shown to be a prognostic factor in head and neck cancer. Objective: To evaluate the relationship between lymph node count and survival in head and neck cancer.
Methods and results: Retrospective chart review of 214 patients with treatment-naïve oral squamous cell carcinoma and subsequently primary resective neck dissection, who received an ipsilateral selective neck dissection (SND). Clinical data were analyzed with respect to the number of resected lymph nodes. The association between clinicopathological parameters and nodal yield was analyzed using multivariate regression analysis. Results: The mean nodal yield was 21.7 (range 0-60) lymph nodes. The number of resected lymph nodes was significantly associated with tumor size (p < 0.001), tumor stage (p < 0.001), and gender (p < 0.001). The number of resected lymph nodes was significantly associated with tumor size (p < 0.001), tumor stage (p < 0.001), and gender (p < 0.001).
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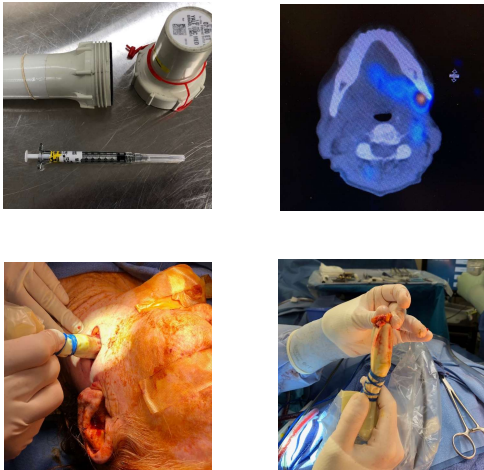


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Sentinel Lymph Node Mapping



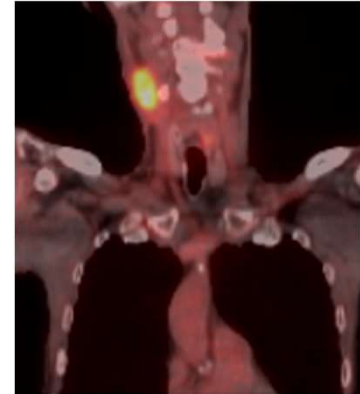
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PET/CT in Clinically Negative Neck

- Negative PET/CT is not validated as a method for deciding on neck dissection



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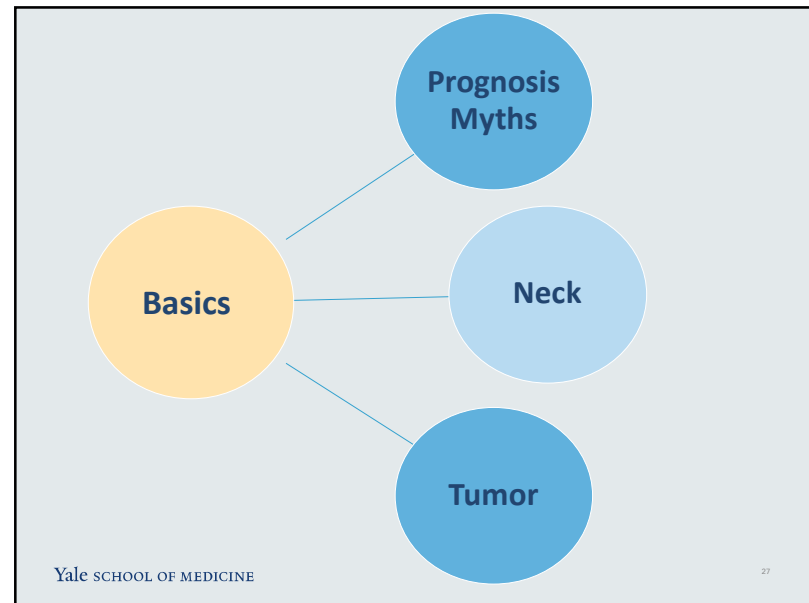
Take Aways

Clinically positive neck warrants comprehensive neck dissection

Clinically negative neck in T3 or T4 stage disease warrants at least an elective supra-omohyoid neck dissection

Clinically negative neck in T1 or T2 disease warrants an elective neck dissection except for thin, less than 3 mm thick tumors

Adequate lymph node yield from your neck dissection affects patient prognosis



Tumor

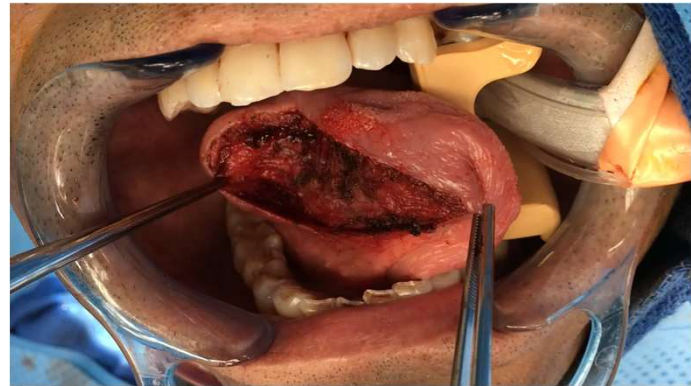


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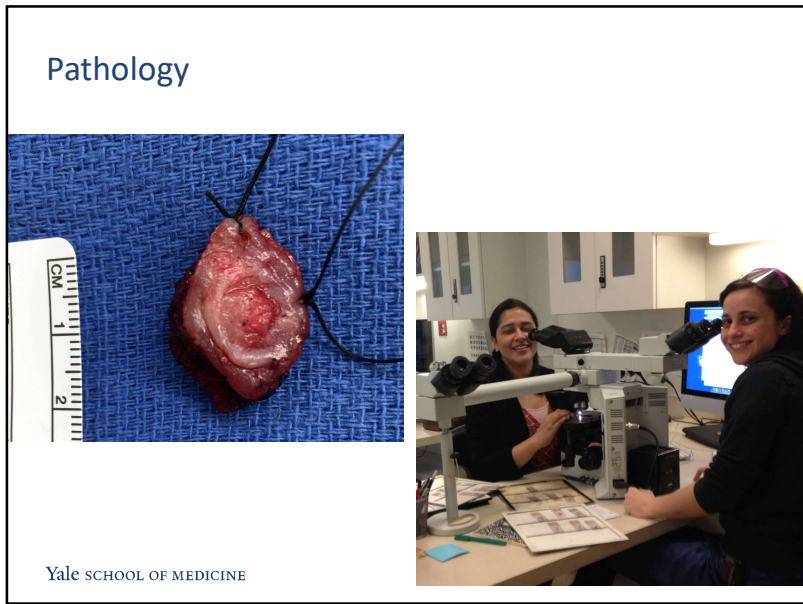
Tumor



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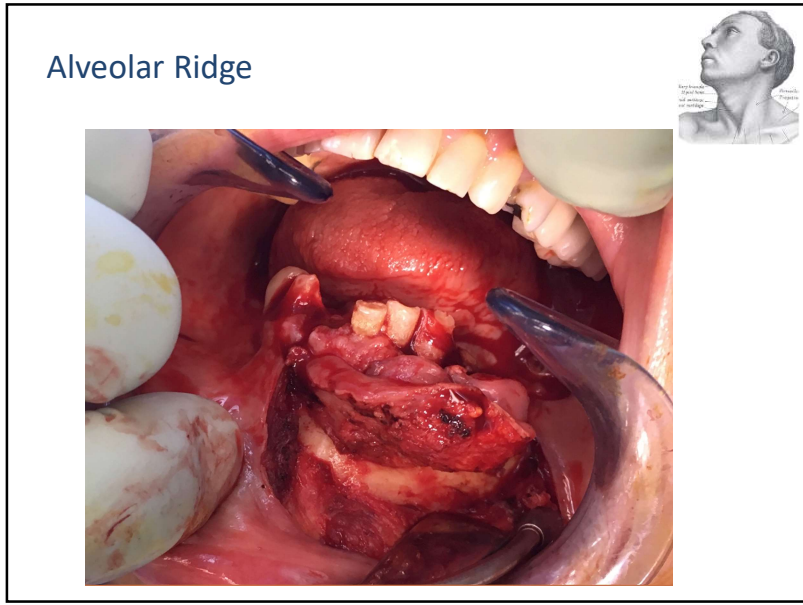
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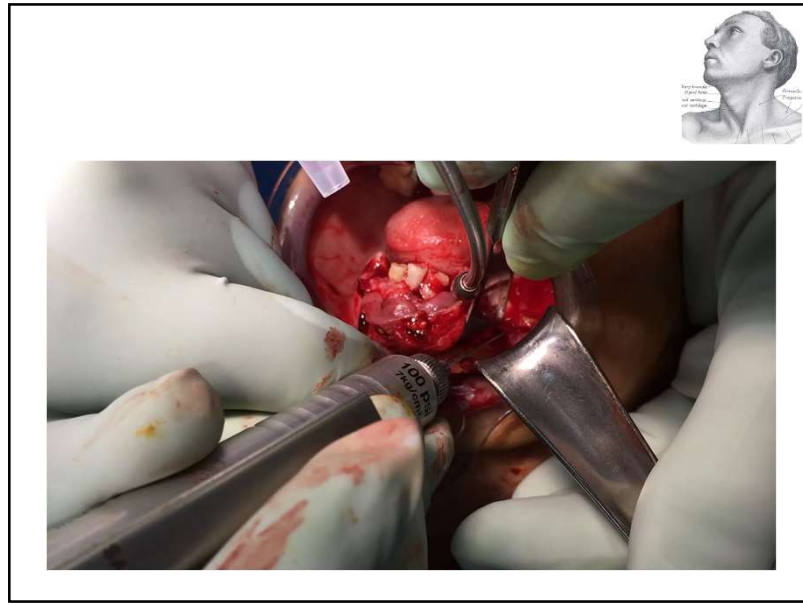
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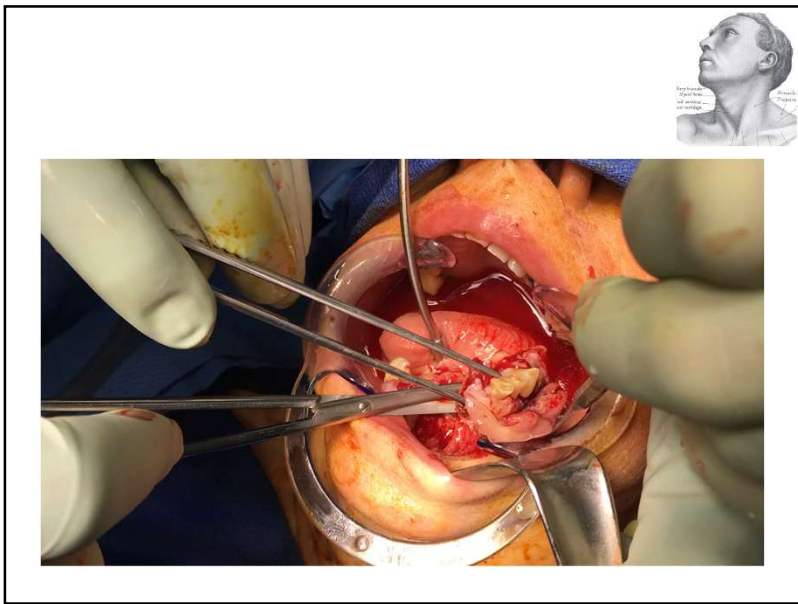
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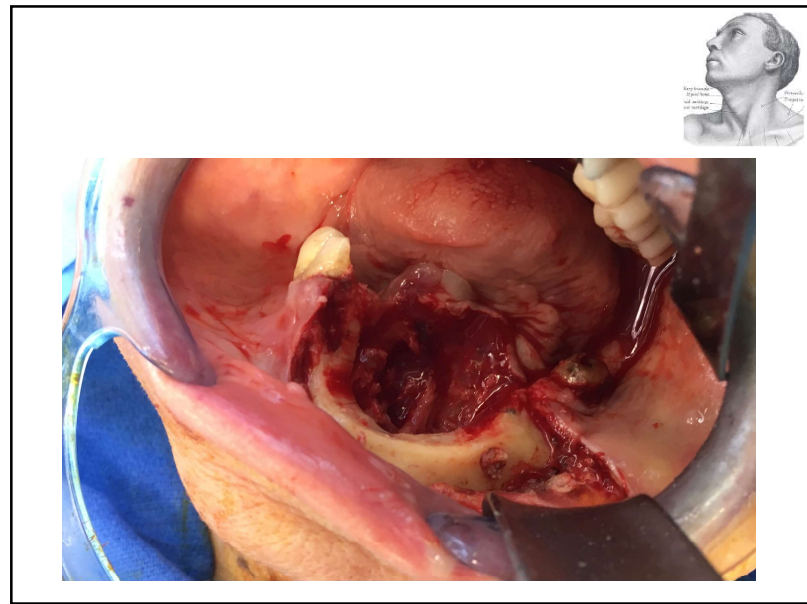
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Margins as a surgical quality measure

Positive margins rates vary by:

- hospital
- case volume

Table 4. Comparison of Treatment Factors Between Academic or Research Programs and Nonacademic Programs

Variable	%		P Value
	Academic or Research Programs	Nonacademic Programs	
Neck dissection	59.2	40.1	<.001
Radiation therapy	15.7	20.7	<.001
Chemotherapy	2.9	2.7	.73
Positive tumor margins	5.5	8.6	<.001
Facility case volume >10 per year	94.8	50.1	<.001
Insurance			<.001
Private	48.6	45.9	
None	5.7	3.8	
Medicaid	6.5	4.5	
Medicare	38.3	45.1	
Other government	0.9	0.8	

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Luryi, AL Judson BL. *JAMA OHNS* 2015, 141(7):593-8.

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Margins in Early Stage Oral Cancer Associated with Survival

Table 3. Multivariable Analysis of the Association of Treatment Factors With Overall Survival

Variable	Hazard Ratio (95% CI)	P Value
Neck dissection		.003
No	1 [Reference]	
Yes	0.85 (0.76-0.94)	
Radiation therapy		<.001
No	1 [Reference]	
Yes	1.31 (1.16-1.49)	
Chemotherapy		.03
No	1 [Reference]	
Yes	1.34 (1.03-1.75)	
Facility type		.03
Academic or research program	1 [Reference]	
Nonacademic program	1.13 (1.01-1.26)	
Insurance		<.001
Private	1 [Reference]	
None	1.18 (0.88-1.58)	
Medicaid	1.96 (1.60-2.39)	
Medicare	1.45 (1.25-1.69)	
Other government	1.42 (0.83-2.42)	
Tumor margins		.005
Negative	1 [Reference]	
Positive	1.27 (1.08-1.49)	

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Luryi, AL, Judson BL. *Oto - HNS* 2014 Dec;151(6):984-90.

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Take Aways

Thoughtful surgical planning for primary tumor resection is particularly important in sites other than the tongue.

Resecting bone, skin, teeth as needed is important for obtaining negative margins.

Negative surgical margins in oral cancers is associated with survival independent of other clinical factors.

Doing a good job on your tumor exision affects patient prognosis



Thank you...

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