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Table of Contents *– **click the page number to go to the summary and full article link.***

Carcinoma of buccal mucosa with metastasis to thigh

Gunjan Agrawal, Ashutosh Gupta, Vivek Chaudhary

from ***Oral Oncology, December 2016***

Squamous cell carcinoma of the oral cavity ranks as the twelfth most common cancer in the world and the eighth most frequent in males. In the USA, cancers of oral cavity comprise approximately 3% of all cancers, the most common sub site for oral cavity carcinomas being the tongue, followed by floor of mouth among all head and neck squamous cell carcinoma.

Buccal mucosa is the most common oral cancer in men and the third most common oral cancer in women in India. It is likely related to the widespread practice of betel nut chewing, in addition to tobacco and alcohol. It is widely known that oral cavity most commonly metastasize to the regional lymph node. Primary buccal mucosa malignancies rarely metastasize to distant sites.

The paper describes a 29 year old man with a complaint of nodule in the medial aspect of the right thigh for 15 days which is slowly increasing in size and he gives history of carcinoma right buccal mucosa, which was treated with right modified radical neck dissection, segmental mandibulectomy, wide local excision of buccal mucosa, and reconstruction with pectoralis major myocutaneous flap. Histological findings confirmed squamous cell carcinoma of the right buccal mucosa and multiple nodal metastases without extra capsular spread, therefore adjuvant radiotherapy was given one and half year back.

Patient was put on follow-up and was locally control of disease on primary site. In last follow-up, a 3-4 cm nodule was palpated in the medial aspect of right thigh. C T scan demonstrated the presence of metastatic lesion to the right medial part of the thigh. True cut biopsy was done to confirm diagnosis, which came to be metastatic squamous cell carcinoma. Due to financial constraints and non-availability in this region, the PET scan could not be done. CT scan was done to rule out metastasis in other regions and did not show any abnormalities.

The occurrence of metastases is correlated with the stage of the primary tumor, the nodal involvement at diagnosis, and the development of relapse on the primary site. In fact, patients with clinically palpable neck disease (N1–N3), histological evidence of metastatic nodal disease, extra capsular spread, and three or more positive lymph nodes are at greater risk of developing failure at distant sites.

Primary tumors of Head and Neck squamous cell carcinoma with advanced disease have been reported to metastasize most frequently to the lung, bone, liver, skin, mediastinum, and bone marrow. Distant metastases are uncommon in buccal carcinoma. Other authors have reported metastasis in others locations, for example the talus bone.

Strengths:

- The potential benefits for patients treated by a multidisciplinary team include a variety of treatment options that the oncologist can offer and the improvement in the survival chances of the patients.
- Clinicians working in a multidisciplinary approach will be able to provide patients with evidence-based care, grant access to an easier clinical diagnosis and finally, a shorter time lapse from diagnosis to starting the treatment.

Weaknesses:

- Single case study analysis has, however, been subject to a number of observations, the most common of which concern the inter-related issues of methodological rigor and researcher subjectivity.
- The second and arguably most prominent critique of single case study analysis is the issue of external validity, which refers to the replicability of the study that has been performed.

back to top

Drainage Patterns to Nontraditional Nodal Regions and Level IIB in Cutaneous Head and Neck Malignancy

Francis Creighton, MD, Regan Bergmark, MD, and Kevin Emerick, MD

from ***Otolaryngology Head & Neck Surgery****, December 2016*

Objectives. (1) Determine the frequency of nontraditional sentinel lymph node (SLN) locations in cutaneous head and neck malignancy and (2) determine the frequency of level IIB SLNs in cutaneous head and neck malignancy.
Design. Case series with chart review.
Setting. Tertiary academic hospital.

Subjects and Methods. In total, 145 consecutive sentinel lymph node biopsy (SLNB) specimens for cutaneous head and neck malignancies were reviewed from 2007 to 2015. Nodal regions were categorized into levels I to V, parotid, external jugular (EJ), perifacial, suboccipital, and postauricular regions. Primary locations were divided into scalp, forehead, cheek, ear, neck, nose, periocular, and lip. Frequencies of sentinel lymph node (SLN) locations for each primary location were determined.

Results. Parotid, EJ, perifacial, suboccipital, postauricular, and level IIB lymph SLNs were identified as nontraditional lymph node regions at risk in head and neck cutaneous malignancy. EJ SLNs were present in over 15% of all cases and over 25% of periocular and cheek lesions. Perifacial SLNs were frequently present in nose and lip lesions. Suboccipital and postauricular nodes were only present in scalp lesions. Level II was the most common location for a SLN. In total, 15.9% of all cases involved level IIB. Scalp and ear primary lesions were most likely to drain to level IIB.

Conclusions. Nontraditional SLN locations, such as EJ, perifacial, suboccipital, postauricular, and parotid, as well as level IIB, are important sites of drainage for head and neck cutaneous malignancy. Prediction of at-risk lymph node regions is important to help guide SLNBs, elective and completion neck lymphadenectomy and radiation, and long-term observation.

Summary: This paper aims to better predict drainage patterns of cutaneous lesions of the head and neck, specifically in nontraditional upper aerodigestive lymph node regions and IIB. A retrospective review of all N0 necks that underwent SLNB was performed. SLNB technique consisted of radiotracer injection followed by lymphscintigraphy at 30 minutes. This was repeated at an additional 30 minutes if no tracer seen. Once migration was confirmed, patients underwent SPECT-CT.

Results are presented in the 2 tables below. There are also 2 very nice figures illustrating the results of the table for those more visually inclined.

Table 1. Distribution (Total Number of Patients and Percentage for Each Primary Location) of Sentinel Lymph Node Locations in the Nontraditional Aerodigestive Tract Nodal Region.

Location	Parotid, No. (%)	External Jugular, No. (%)	Perifacial, No. (%)	Postauricular, No. (%)	Suboccipital, No. (%)
Scalp (n = 32)	4 (12.5)	0	1 (3.1)	3 (9.4)	12 (37.5)
Forehead (n = 13)	11 (84.6)	2 (15.4)	2 (15.4)	0	0
Cheek (n = 38)	12 (31.6)	11 (29.0)	2 (5.3)	0	0
Ear (n = 13)	3 (23.1)	1 (7.7)	0	0	0
Neck (n = 16)	0	3 (18.8)	0	0	0
Nose (n = 7)	1 (14.3)	0	3 (42.9)	0	0
Periocular (n = 17)	13 (76.5)	6 (35.3)	0	0	0
Lip (n = 6)	0	0	2 (33.3)	0	0
Postauricular/occipital (n = 3)	0	0	0	0	0

Table 2. Distribution (Total Number of Patients and Percentage for Each Primary Location) of Sentinel Lymph Node Locations in the Traditional Aerodigestive Tract Nodal Region.

Location	IA, No. (%)	IB, No. (%)	II	II, No. (%)B	III, No. (%)	IV, No. (%)	V, No. (%)
Scalp (n = 32)	0	2 (6.3)	14 (43.8)	10 (31.3)	3 (9.4)	4 (12.5)	17 (53.1)
Forehead (n = 13)	0	0	7 (53.8)	1 (7.7)	0	0	0
Cheek (n = 38)	1 (2.6)	4 (10.5)	22 (57.9)	4 (10.5)	3 (7.9)	1 (2.6)	9 (23.7)
Ear (n = 13)	0	0	13 (100)	4 (30.8)	2 (15.4)	1 (7.7)	2 (15.4)
Neck (n = 16)	0	0	8 (50.0)	1 (6.3)	5 (31.3)	2 (12.5)	7 (43.8)
Nose (n = 7)	0	2 (28.6)	4 (57.1)	1 (14.3)	4 (57.1)	2 (28.6)	0
Periocular (n = 17)	0	0	12 (70.6)	2 (11.8)	4 (23.5)	0	2 (11.8)
Lip (n = 6)	1 (16.7)	3 (50.0)	2 (33.3)	0	1 (16.7)	2 (33.3)	0
Postauricular/occipital (n = 3)	0	0	1 (33.3)	0	0	0	3 (100)

Strengths:

- Largest series examining this question to date.
- Quantification and delineation of nontraditional lymph node drainage sites from cutaneous malignancy.
- This in-depth evaluation of drainage patterns is very helpful to guide SLNBs, elective and completion neck lymphadenectomy and radiation, and long-term observation.

Weaknesses:

- Retrospective review and underpowered N.

- Did not correlate SPECT-CT findings with ultimate surgical findings, raising the question of the accuracy of the pre-operative SPECT-CT.

back to top

The Safety and Efficacy of Endoscopic Zenker's Diverticulotomy: A Cohort Study

Barton M, Detwiller K, Palmer A, Schindler J.

*from **Laryngoscope**, December 2016*

Objectives/Hypothesis: To determine whether the application of laser-assisted techniques for the treatment of Zenker's diverticulum would reduce the failure rate of endoscopic procedures without compromising safety or durability. Study Design: Cohort study with long-term follow-up.
Methods: We performed a single-institution review of 106 consecutive patients in whom endoscopic laser-assisted diverticulotomy (ELD) or endoscopic stapler-assisted diverticulotomy (ESD) was attempted. The Eating Assessment Tool was collected pre- and postoperatively. Long-term follow-up was conducted on average 2.4 years postoperatively.
Results: The decision to use either ELD or ESD was made intraoperatively. An endoscopic procedure was successfully completed in 103 of 106 patients (97.2%). Eighty-three patients underwent ELD, 20 underwent ESD, and only three required use of an open approach. No serious complications occurred. Postoperatively, there was a significant reduction in dysphagia symptoms. At follow-up, most individuals had dysphagia scores within the normal range (69%) and were eating a regular diet (73%). Fourteen patients (14%) required revision. Compared to historical data from our institution for ESD alone, the addition of ELD resulted in a reduction in the failure rate without an increase in serious complications. Recurrence rates and long-term outcomes were equivalent.
Conclusion: Through careful patient selection, appropriate workup, and judicious use of techniques, it was possible to perform endoscopic surgery in a majority of patients without serious complications. Both approaches resulted in short- and long-term symptom management with high levels of satisfaction.

Summary

- A case series of patients with Zenker diverticulum treated by endoscopic techniques by the same operator. Criteria to use the ESD approach were diverticula longer than 25 mm and easiness to expose it. The others were treated by ELD technique.
- Overall conversion to open procedure was lower than 3% and reoperation rate was 13% at 20 month of follow-up. Complications rate was 8%, all complications occurred in the ELD group, were treated conservatively and required a hospital stay lower than 5 days.
- Patients have an improvement in EAT-10 scores and dysphagia symptoms, irrespective of the technique.

Strengths

- Good sample size of patients made by the same operator following a structured protocol of pre and postoperative assessment with validated instruments.
- ELD was more used in reoperation and patients with dismotility, and even reached lower EAT-10 scores.

Weaknesses

- The number of patients in each group is quite different suggesting a preference and more experience with the ELD approach. For example ESD patients had more history of dysphagia (70% vs 54%), took more PPI/H2 blocker preoperatively (55% vs 42%), less esophageal dismotility (20% vs 34%) and less surgery previously completed (10% vs 24%). This can introduce a bias.
- ELD group have more complications (8% vs =5) and lower EAT-10 scores (4.38 vs 9.5). However, size of both groups is different (88 patients in ELD vs 20 in ESD). This can explain why some outcomes didn't reach statistical significance.
- For EAT-10 and long term assessments, the loss of follow-up was high (52 and 57%, respectively). It is known that patients who answer surveys usually have better results in comparison with those who do not answer.

back to top

Initial Size of Metastatic Lesions Is Best Prognostic Factor in Patients with Metastatic Differentiated Thyroid Carcinoma Confined to the Lung

Mijin Kim, Won Gu Kim, Suyeon Park, Hyemi Kwon, Min Ji Jeon, Jong Jin Lee, Jin-Sook Ryu, Tae Yong Kim, Young Kee Shong, and Won Bae Kim

*from **Thyroid**, January 2017*

Background: For patients with lung metastases of differentiated thyroid carcinoma (DTC), there is no consensus on the maximal size of metastatic lesions to use when determining the intensity of follow-up and additional therapeutic options. This study evaluated the clinical outcomes and survival of patients with metastatic DTC confined to the lung, using the maximal diameter of lung lesions in the initial computed tomography.
Methods: This retrospective cohort study included 112 DTC patients with metastases confined to the lung. The clinical responses were evaluated according to changes in the serum levels of stimulated thyroglobulin or antithyroglobulin antibody, disease status was evaluated according to radiological findings, progression-free survival (PFS), and cancer-specific survival (CSS).
Results: Macronodular lung metastases (> or = 1 cm) were observed in 27 (24%) patients, and these patients had significantly poor biochemical responses and disease status ($p < 0.001$, and $p < 0.001$, respectively), irrespective of radioactive iodine (RAI) avidity. After adjusting for age, sex, primary tumor size, extrathyroidal invasion, cervical lymph node metastasis, time of lung metastasis, and RAI avidity, the macronodular group also had shorter PFS and CSS ($p = 0.009$ and $p = 0.03$, respectively) than the micronodular group. From the multivariate analyses, RAI avidity was not an independent prognostic factor predicting PFS and CSS. In the subgroup

analyses, RAI avidity was a significant prognostic factor associated with better PFS and CSS (p = 0.013 and p = 0.021, respectively) in the micronodular group only.
Conclusions: The initial largest diameter of metastatic lesions is the most important prognostic factor for predicting poor clinical outcomes and survival in patients with metastatic DTC confined to the lung.

Summary statements: 1) the initial largest diameter of metastatic lesions in the lung is the most important prognostic factor for predicting poor clinical outcomes and poor survival in patients with metastatic DTC confined to the lung.
2) RAI avidity was not an independent prognostic factor predicting PFS and CSS in multivariate analyses in patients with macronodular LM.
3) RAI avidity was a significant prognostic factor associated with longer PFS and CSS only in the micronodular group.
4) The efficacy of repeated high-dose RAIT to improve survival of patients with macronodular lung metastases should be evaluated in future studies. The findings suggest that short-term chest CT follow-up should be performed, and other therapeutic options such as TKIs should be considered earlier if any disease progression is detected in patients with macronodular LM, rather than repeating RAIT, even if the metastatic lesions are RAI avid.

Strengths:

1. Limited the study population only to those patients who had lung metastases, excluding those with other additional sites such as osseous and other organs. Makes the results cleaner as applied to patients with LM's.
2. Utilized both structural (radiographic) and biochemical parameters to determine disease status (NED, stable, progressive) with very strict criteria for NED (no evidence of radiographic, WBS or biochemical detectable disease).
3. Findings of the article have great applicability particularly in patients with macronodular disease that show evidence of progression on imaging regardless of RAI avidity as these patients will not respond to RAIT and should be considered for other modalities such as TKI's.

Weaknesses:

1) Retrospective.
2) Single institution, small numbers overall.

back to top