



Laryngeal Carcinoma with Thyroid Mets

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Introduction

As in all types of cancer cells there is potential to grow locally and to spread to other parts, laryngeal cancer, is a head and neck cancer in which cancer cells found in the larynx to start with but can spread locally as well as distant site.

Laryngeal carcinoma is diagnosed by the direct laryngoscopic biopsy of observed abnormal tissue.

Laryngeal carcinoma is staged according to the extension locally or other sites of body. Treatment is with Radiotherapy or surgery in early stages and combined modality in advanced stages. The signs and symptoms of laryngeal cancer may include, changes in voice, breathlessness, sore throat, cough, neck swelling etc.

Cancer metastasis to thyroid gland is a very rare finding especially from non thyroid tissues, even after having extensive blood supply, may be attributed due to fast blood circulation.

Generally cancer can spread three ways⁽¹⁾, Cancer invades the surrounding normal tissues, Cancer invades the lymphatic and travels through the vessels to other places in the body, Cancer cells invades the veins and capillaries and travels through the blood to other places in the body. In approximately 15-20% Laryngeal carcinoma

patients over the course of the disease distant metastasis were seen. It is, however, a relatively uncommon first site of failure, as compared to local and regional recurrence. Distant spread occurs most commonly to the lungs, in patients who present with advanced disease, and especially in those with pathologically proven lymph nodes at multiple levels of the neck or in the lower neck⁽²⁾. Thyroid metastasis is very rare finding in case of Laryngeal carcinoma⁽³⁾ as found in this patient so presenting case report.

Case Report

A 46 year old male presented to the OPD with chief complains of necks swelling and difficulty in swallowing food for last 4 months and mild change in voice for 2 months.

The patient was examined and found to have no abnormality in oral cavity, right level II cervical lymph node enlarged (1.5X1.5 cm hard fixed)and left level IB lymph node enlarged (2X2cm hard fixed).

His laryngoscopy showed mass over right side of epiglottis. Contrast CT Scan of face and neck showed 4.1x2.8x2.2 cm inhomogeneous lesion present over epiglottic fold and right vallecula few

B/L IB, II, and R level III lymph node largest 2.2x2.2 cm.

FNAC from Right neck swelling showed metastatic squamous cell carcinoma, direct laryngoscopic biopsy from aryepiglottic fold showed invasive squamous cell carcinoma. He was diagnosed and staged as carcinoma supraglottic larynx CT3N2cM0.

He was planned concurrent chemoradiation and received 70 Gy/35#/7 weeks with concurrent injection cisplatin 100 mg/m² 3 weekly last fraction of radiotherapy was received on 7/6/19, patient was on follow up. He was clinically NAD. So advised for routine follow up PETCT. PET CT done on 27/9/19 showed residual disease in epiglottis and R vallecula and FDG avid in B/L thyroid nodule. FNAC from thyroid lump showed metastatic carcinoma and S.TSH level was raised. Patient was planned for salvage chemotherapy (cisplatin+5fu). 6 cycles of salvage chemotherapy was given last on 7/3/20 patient had good subjective response. CECT FACE AND NECK done after 6 cycles of salvage chemotherapy showed 14x7x30 mm primary lesion no cervical lymphadenopathy. So advised for confirmatory PETCT. But patient refused for PETCT.

Discussion

Distant metastasis is a significant problem in patients with carcinoma but it is, however, a relatively uncommon in carcinoma larynx. Distant spread occurs most commonly to the lungs, in patients who present with advanced disease, and especially in those with pathologically proven lymph nodes at multiple levels of the neck or in the lower neck. Metastasis to distant sites also occurs more often in patients who recur locally or in the neck⁽²⁾.

Thyroid gland is amongst the least frequent sites for metastasis⁽³⁾. The common primary tumors that metastasize to the thyroid gland are renal cell and colorectal carcinoma, while sarcoma is amongst the least common primary origins for thyroid metastasis. The time interval between the original diagnosis of the primary cancer and the metastasis

to the thyroid gland is variable and ranges between few months to year

Despite the rich blood supply of the thyroid gland, it has a low incidence of metastasis. Metastasis to the thyroid gland was described as early as 1871 from a primary testicular tumor. The low incidence of metastasis may be attributed to the fast arterial blood flow, as well as, the high levels of oxygen and iodine. These factors may prevent dislodging of the secondary tumor cells and their secondary growth⁽⁴⁾.

Patients with metastatic thyroid cancer usually present with symptoms similar to primary thyroid cancer, mainly a palpable neck mass. Dysphagia or dysphoniamay develop later if the metastatic cancer is advanced. Thyroid function is usually normal^(5,6). That's why detailed and thorough past medical and surgical history is very important, and metastatic thyroid cancer should be considered in any patient presenting with thyroid nodule especially if the patient has history of previous malignancy, regardless the time elapsed between the diagnosis of the primary malignancy. In addition, the recurrence of the primary disease should be considered. Detailed clinical history may also reveal occult primary malignancy, for example if the patient is complaining of hematuria or hemoptysis; this may indicate underlying renal or lung cancer.

Diagnostic approach is the same as any thyroid nodule (history and examination, imaging, biopsy). The advancement in technology has helped significantly in diagnosis via using high resolution ultrasound, CT and PET scan; however, these scans are sometimes unreliable in differentiating between primary and secondary lesions. FNAC can usually be of great assistance.

References

1. "Oropharyngeal Cancer Treatment (PDQ®)". National Cancer Institute. Retrieved 2011-04-18
2. Merino OR, Lindberg RD, Fletcher GH: An analysis of distant metastases from squamous cell carcinoma of the upper

- respiratory and digestive tracts. *Cancer* 1977;40:145–151
3. Willis RA. Metastatic Tumours in the Thyreoid Gland. *Am J Pathol* 1931;7:187-208.3. [PMC free article] [PubMed]
 4. Lee DJ, Kwon MJ, Nam ES, et al. Histopathologic predictors of lymph node metastasis and prognosis in tonsillar squamous cell carcinoma. *Korean J Pathol* 2013;47:203-10.
10.4132/KoreanJPathol.2013.47.3.203
[PMC free article] [PubMed] [CrossRef] [Google Scholar]
 5. Papi G, Fadda G, Corsello SM, et al. Metastases to the thyroid gland: prevalence, clinicopathological aspects and prognosis: a 10-year experience. *Clin Endocrinol (Oxf)* 2007;66:565-71. [PubMed] [Google Scholar]
 6. Shimaoka K. Thyrotoxicosis due to metastatic involvement of the thyroid. *Arch Intern Med* 1980;140:284-5. 10.1001/archinte.1980.00330140142050 [PubMed] [CrossRef] [Google Scholar]