



Carcinoma of Base of Tongue with Disseminated Nonregional Lymph Nodal Metastases Clinically Mimicking Lymphoma: The First Reported Case and Review of Literature

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Head-and-neck squamous cell carcinomas (SCCs) are malignancy with propensity mostly for the locoregional spread. Most frequent sites of distant metastases include lung, bone, liver, and adrenal. Distant metastases to nonregional lymph nodes without visceral involvement from oropharyngeal cancer are extremely rare. To the authors' knowledge, this is the first case reported where a male presented with SCC of the base of tongue with widespread nodal metastases without any visceral involvement as primary presentation.

Key words: Squamous cell carcinomas, oropharyngeal cancer, lymph nodes

INTRODUCTION

The management of the neck in squamous-cell carcinoma (SCC) of the head and neck is based on the predictable pattern of lymphatic spread of disease to the cervical lymph nodes. Unpredictable spread hardly occurs.¹ Metastases from the head-and-neck carcinomas to lymph nodes below the clavicular region have been reported very infrequently in the literature. This index case is the first reported case where the axillary, mediastinal, retroperitoneal, and inguinal nodes were involved as the primary presentation of the patient with SCC of the base of the tongue.

CASE REPORT

An otherwise well, 45-year-old male, a chronic smoker presented with 3 months history of swelling on his left side of the neck. On clinical examination, he was found to have an abnormal growth in the base of tongue (more on the left side) involving anterior tonsillar pillar with extension into the left tonsil and valleculae and the lesion measured 5 cm in maximum diameter. He had multiple enlarged bilateral cervical nodes, all measuring <6 cm in diameter.

Levels 1, 2, 3, 4, and 5 were all involved [Figure 1]. Multiple bilateral axillary and inguinal nodes were also palpable with the largest node in the left axilla of 4 cm × 4 cm. Histopathologic examination (HPE) of a biopsy from the base of the tongue growth suggested a moderately differentiated SCC [Figure 2]. HPE from the left level 2 cervical lymph node and left axillary lymph node suggested metastatic SCC [Figure 3]. Contrast-enhanced computed tomography scan (CECT) of the face, neck, thorax, and abdomen revealed diffuse homogenously enhancing sheet-like growth in base of the tongue, both lingual and tonsils (left > right) with thickening of medial and lateral glossoepiglottic folds resulting in obliteration of both valleculae and luminal narrowing of oropharynx and nasopharynx. Multiple homogenously enhancing lymph nodes were seen involving bilateral cervical, bilateral axillary, mediastinal, retroperitoneal, bilateral common iliac, bilateral external iliac, bilateral internal iliac, and bilateral superficial inguinal region [Figure 4]. CECT features were suggestive of lymphoma although HPE disproved the same.

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Figure 1: Photograph showing enlarged and bulky left cervical lymph nodes

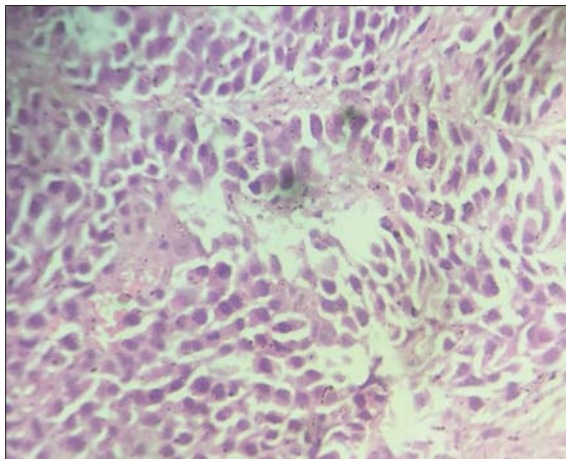


Figure 2: Histopathologic examination from the base of the tongue growth showing squamous cell carcinoma

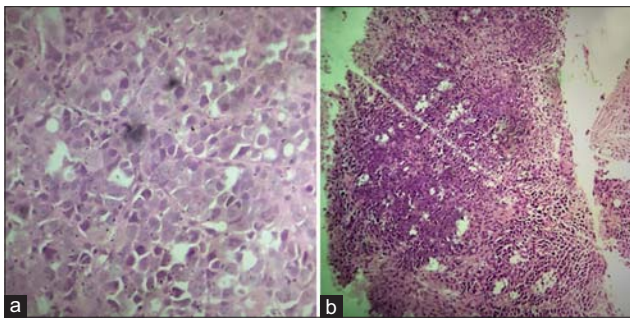


Figure 3: (a) Histopathologic examination from the left cervical lymph node showing sheets of polygonal cells with moderate-to-abundant eosinophilic cytoplasm, hyperchromatic nuclei showing atypia, and atypical mitosis suggestive of metastatic squamous cell carcinoma (b) Histopathologic examination from left axillary lymph node showing sheets of cells against a fibrocollagenous stroma showing features of metastatic squamous cell carcinoma

In view of Stage IV disease, he was started on palliative chemotherapy with paclitaxel and carboplatin.

DISCUSSION

The predictable pattern of lymphatic metastasis based on tumor histology and site of origin has been well-documented for most head-and-neck cancers.² These cancers typically present with local symptoms; distant metastases are relatively uncommon.³ Alavi *et al.* reviewed 342 patients with mucosal head-and-neck SCCs (HNSCC), and 47 (13.7%) had distant metastases. Five patients (1.5%) had metastases to distant lymph nodes (axilla, inguinal, and preternal).³ Metastasis of SCC of the head-and-neck region to distant lymph nodes has been reported very infrequently in the literature. An exhaustive English literature search suggests this to be the first reported case of carcinoma of the base of the tongue with disseminated lymph node metastases. Strong prognostic indicators that predict the development of distant metastases are the presence and number of lymph node metastases in the neck and extranodal spread. Much studies have invested into the understanding of lymphatic dissemination of cancer. Possible explanation for this unusual location of lymphatic metastases is blockage of lymph nodes as a result of surgical manipulation or radiotherapy or metastasis from a second primary tumor. Patients who underwent tracheostomy or with parastomal recurrences are at risk of axillary lymph node metastasis due to lymphatic connections between the skin and soft tissues at the level of manubrium to the transverse cervical chain as well as to axillary lymph nodes.^{4,5} Hence, it makes our case unique, as the disseminated lymph node metastases were found in the primary setting with no history of surgery, radiotherapy, tracheostomy, recurrence, or other synchronous or metachronous malignancies. Hence, considering existing evidence, we believe either there was lymphatic spillage owing to local blockades by heavy tumor burden or there is another hidden plausible theory, yet to be discovered. Once distant metastases are detected, patients have a very poor prognosis. The time interval between the diagnosis of distant metastasis and death is <2 years in >90% of such cases.⁶ The optimal management of this type of distant lymphatic metastasis remains poorly defined because of an insufficient number of patients reported in the literature. Some drugs have been demonstrated in clinical trials to have activity in HNSCCs and the list is well-summarized in prior reviews.^{7,8} The most commonly used include methotrexate, cisplatin, carboplatin, 5-FU, paclitaxel, and docetaxel, with reported major response rates ranging from 15% to 42%. Cetuximab in combination with platinum-based combination chemotherapy is superior to chemotherapy alone in patients with recurrent or metastatic HNSCC, and it is recommended to improve overall survival, progression-free survival, and response rate.⁹ Immunotherapy represents an attractive treatment strategy for recurrent or metastatic HNSCC with promising preliminary results.¹⁰

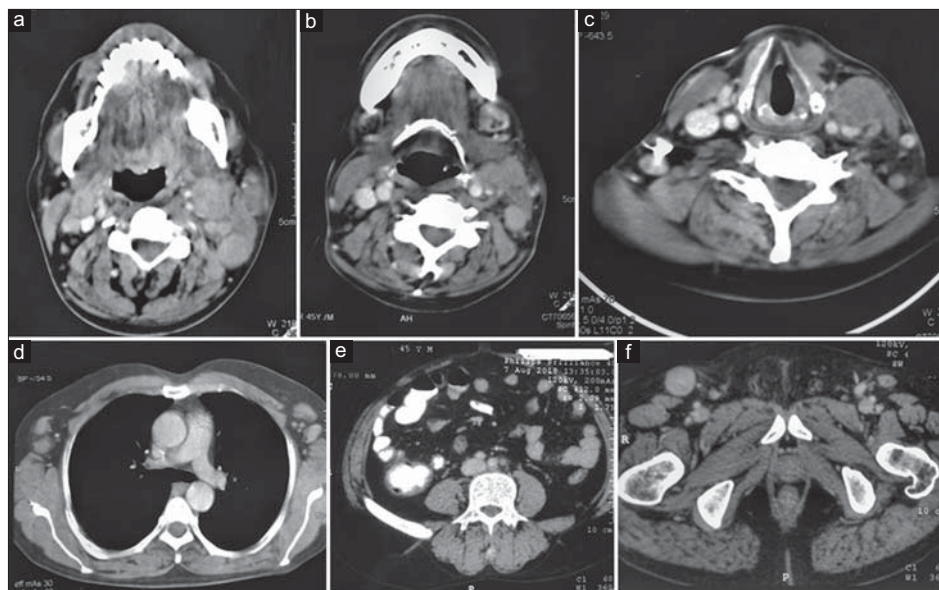


Figure 4: Contrast-enhanced computed tomography scan of the face, neck, thorax, and abdomen showing (a) diffuse homogenously enhancing sheet-like growth in base of the tongue, (b and c) multiple enlarged lymph nodes in bilateral cervical, (d) bilateral axillary, mediastinal, (e) retroperitoneal, and (f) bilateral superficial inguinal region

CONCLUSION

Distant or nonregional lymph nodal metastases from oropharyngeal carcinoma are not so common an event; however, because it mostly occurs in the advanced stages of malignancy or may appear late, this scenario should be kept in mind.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

- McKenzie BJ, Looock JW. Axillary nodal metastasis at primary presentation of an oropharyngeal primary carcinoma: A case report and review of the literature. *J Med Case Rep* 2009;3:7230.
- Mukherji SK, Armao D, Joshi VM. Cervical nodal metastases in squamous cell carcinoma of the head and neck: What to expect. *Head Neck* 2001;23:995-1005.
- Alavi S, Namazie A, Sercarz JA, Wang MB, Blackwell KE. Distant lymphatic metastasis from head and neck cancer. *Ann Otol Rhinol Laryngol* 1999;108:860-3.
- Kowalski LP. Noncervical lymph node metastasis from head and neck cancer. *ORL J Otorhinolaryngol Relat Spec* 2001;63:252-5.
- Calhoun KH, Fulmer P, Weiss R, Hokanson JA. Distant metastases from head and neck squamous cell carcinomas. *Laryngoscope* 1994;104:1199-205.
- Li X, Shen Y, Di B, Song Q. Squamous cell carcinoma. In: Li X, editor. *Metastasis of Head and Neck Squamous Cell Carcinoma*. InTech; 2012. DOI: 10.5772/25565. Available from: <http://www.intechopen.com/books/squamous-cell-carcinoma/metastasis-of-head-and-neck-squamouscell-carcinoma-hnsc>.
- A phase III randomised trial of cisplatin, methotrexate, cisplatin + methotrexate and cisplatin + 5-FU in end stage squamous carcinoma of the head and neck. Liverpool Head and Neck Oncology Group. *Br J Cancer* 1990;61:311-5.
- Gibson MK, Li Y, Murphy B, Hussain MH, DeConti RC, Ensley J, *et al.* Randomized phase III evaluation of cisplatin plus fluorouracil versus cisplatin plus paclitaxel in advanced head and neck cancer (E1395):

- An intergroup trial of the Eastern cooperative oncology group. J Clin Oncol 2005;23:3562-7.
9. Vermorken JB, Mesia R, Rivera F, Remenar E, Kawecki A, Rottey S, *et al.* Platinum-based chemotherapy plus cetuximab in head and neck cancer. N Engl J Med 2008;359:1116-27.
 10. Kainickal CT. Targeted therapy in recurrent or metastatic head and neck carcinoma. Hos Pal Med Int J 2018;2:71-6.