

Cutaneous Metastasis of Carcinoma Tongue: A Rare Case Report

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Abstract

Carcinoma of the oral cavity is one of the most common cancers of the head-and-neck region with frequent metastasis to internal organs, especially the lungs, liver, and bone. However, cutaneous metastasis of head-and-neck squamous cell carcinoma is rarely reported in the literature, with only a few cases reported in the past. Here, we report a case of relapse of squamous cell carcinoma of the tongue which metastasized to the upper trunk region.

Keywords: Carcinoma tongue, cutaneous metastasis, upper trunk

INTRODUCTION

Carcinoma of the oral cavity constitutes one of the most common cancers of head-and-neck region, accounting for 30% of all head-and-neck cancer.^[1] Carcinoma of the oral cavity is even more common in Southeast Asia because of the widespread use of betel nut, especially in India.^[2] The common sites of distant metastasis are the lung, liver, and bones.^[3] However, cutaneous metastasis (CM) of squamous cell carcinomas of head and neck is rare. CM usually occurs in the neck, scalp, or over the skin near the primary site; we report a patient with carcinoma of the tongue, who presented with distant skin metastases to the upper trunk.

CASE REPORT

A 46-year-old male who was a known case of invasive squamous cell carcinoma of the lateral border of the tongue (T2 N 2a M0, i.e., Stage III) had partial glossectomy with radical neck dissection followed by chemotherapy and radiotherapy. Histopathology of the resected specimen confirmed moderately-differentiated squamous cell carcinoma with negative margins. The patient presented with recurrence of tongue lesion for 1 month after 4 years of glossectomy and radiotherapy. There was no clinical evidence of metastasis into the lymph nodes, lung, bones, or any other organ. He was started on chemotherapy (weekly 5-fluorouracil, paclitaxel, filgrastim, and radiotherapy five times/week (64 Gy in 30 fractions). He

was referred to the department of dermatology with complaints of asymptomatic to mildly itchy red-raised lesions over the chest region for 1 week. On mucocutaneous examination, over the upper chest, there were multiple well to ill-defined erythematous to violaceous nontender noduloplaques of 0.6 cm × 0.6 cm to 3 cm × 3 cm, approximately, with no surface changes [Figure 1]. Oral mucosa was not properly visualized because of difficulty in opening mouth, there were erosions over the inner aspect of the lower lip and adjoining region with evidence of hemorrhagic crusting and yellowish slough at places. Over the left lateral border of the lip, there was a single well to ill-defined ulcer of size 4 cm × 2 cm, approximately, with yellowish slough over the surface [Figure 2]. The lymph node was nonpalpable. Routine hemogram, biochemistry, chest X-ray, and ultrasound abdomen were within normal limits. A punch biopsy was sent with the possibilities of CM of the tongue, lymphomatoid papulosis, and radiation recall dermatitis. Histopathological examination showed normal epidermis with pleomorphic tumor epithelial cells having hyperchromatic plump spindle-shaped nuclei infiltrating the dermis. The diagnosis was consistent with suggesting

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poorly-differentiated squamous cell carcinoma [Figure 3]. Hence, a final diagnosis of relapsed squamous cell carcinoma with CM was made. Radiotherapy and chemotherapy were continued, but the patient died 6 weeks after the onset of cutaneous lesions.

DISCUSSION

Head-and-neck squamous cell carcinoma (HNSCC) are locoregional malignancies. Distant metastases (DM) of HNSCC were relatively rarely seen. Multimodality treatments of HNSCC usually improve the local disease but have not much benefit at metastatic sites. DM depends on the site of primary tumor, its stage, and the presence or absence of regional control above the clavicle. Extracapsular spread from the lymph node further increases the risk of DM. The hypopharynx is the most common, primarily associated with distant metastasis, followed by the base of the tongue and anterior tongue. The current treatment has been successful in improving locoregional control, but there is no evidence of control of distant metastasis. The lung is the most common site involved by HNSCC metastasis, followed by the bone and liver. CM, especially at distant sites, is unusual. The overall incidence of CM from underlying internal malignancies ranges between 0.7% and 9%, but that from HNSCC is rare (0.7%–2.4%) with only few cases reported in the literature.^[4] One of

the first reported cases in literature was in 1985 by Schultz and Schwartz, where a patient developed CM secondary to carcinoma of the hypopharynx.^[5] The exact mechanism of skin metastasis in HNSCC is incompletely understood. Kmucha and Troxel described three possible mechanisms which included direct spread, local spread, and distant spread.^[6] Skin metastasis is thought to involve hematogenous spread where pulmonary circulation and filtration can be theoretically bypassed through the azygos venous and vertebral venous system in Batson's plexus allowing skin implantation.^[1] A tumor needs to detach from the primary tumor, invade, and intravasate into a blood or lymphatic vessel, survive in the circulation, extravasate, and finally invade and proliferate at the secondary site. Usually, cutaneous lesions are localized at sites close to primary, because metastatic spread occurs through the lymphatic route to areas having common lymphatic drainage as that of the primary tumor. After neck dissection and radiotherapy, new and aberrant lymphatics open up, which may explain the development of metastasis on the chest in our case.^[7] Different studies have reported cutaneous metastasis at different sites with an average duration of 1 year after receiving chemoradiotherapy [Table 1].^[8-13]

CM occurs in advanced stage of disease and indicates a poor prognosis.^[14] Berger and Fletcher in their study reported that average survival was only around 3 months after skin metastasis becomes clinically evident in HNSCC.^[15] The treatment is mainly palliative and does not improve survival.



Figure 1: Noduloplaque lesions on the chest showing cutaneous metastasis



Figure 2: Recurrence of tongue lesion

Table 1: Various sites of distant metastasis in different studies

Study	Area of tongue involved	Postradiotherapy duration (months)	Site of cutaneous metastasis	Other sites of metastasis
Rastogi <i>et al.</i> ^[8]	Base of the tongue	18	Left arm	
Rahman <i>et al.</i> ^[9]	Base of the tongue	1	Thigh and face	Nil
Singh <i>et al.</i> ^[10]	Right side	10	lumbar	Renal
Aiempnanakit ^[11]	Base of the tongue	1	Multiple cutaneous	Lung, liver and bone
Dasmajumdar <i>et al.</i> ^[12]	Base of the tongue	24	Periorbital	Nil
Bedi <i>et al.</i> ^[13]	Base of the tongue	12	Scalp, neck, abdomen, and hand	-
Ours	Left side of the tongue	48	Anterior chest	Nil

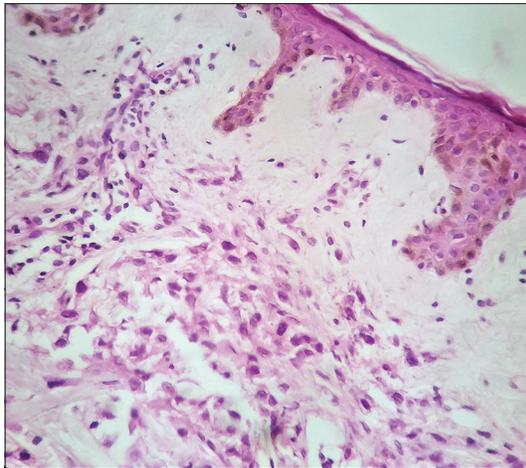


Figure 3: Normal epidermis with dermis showing isolated pleomorphic tumor epithelial cells with hyperchromatic plump spindle-shaped nuclei (H and E, $\times 400$)

Our patient was already on palliative chemotherapy and radiotherapy, hence he was counseled about the disease. The patient succumbed to his disease 6 weeks after the onset of CM.

CONCLUSION

Squamous cell carcinoma of tongue is commonly reported from India. Distant CM is rare and when they develop the prognosis is poor.

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.

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