

Multiple cutaneous metastases in laryngeal carcinoma: A rare occurrence

Kishore Das, Manigreeva Krishnatreya¹, Nizara Baishya, Anupam Sarma², Amal Chandra Katak

Departments of Head and Neck Oncology, ¹Epidemiology and Biostatistics and ²Pathology, Dr. B Borooah Cancer Institute, Guwahati, Assam, India

ABSTRACT

Metastasis to the skin in laryngeal squamous cell carcinoma is an extremely rare occurrence. We report a case of multiple cutaneous metastases in the follow-up of a 60-year-old male with squamous carcinoma of the vocal cords that were treated with surgery and radiotherapy. The patient presented with multiple painful skin nodules at 3 months following the completion of treatment. Clinically the skin nodules mimicked an inflammatory skin lesion. The diagnosis of metastatic skin lesions was made by cytological examination. Appearance of new painful skin lesions soon after the completion of treatment in patients treated for squamous carcinoma of the larynx should warrant a clinical suspicion of cutaneous metastases.

Key words: Cutaneous metastasis, inflammatory, laryngeal cancer, squamous carcinoma

INTRODUCTION

The head and neck cancer, especially laryngeal cancers rarely metastasize to the skin. Even the metastasis to regional lymph nodes in squamous carcinoma of the vocal cords (SCVC) is rare due to the sparse lymphatics of the vocal cord. The incidence of cutaneous metastasis in head and neck cancers is <1%.^[1] Common sites for skin metastasis in head and neck squamous carcinoma are the skin of chest and abdomen, however, the metastasis to skin of the face is further rare.^[2] Here, we report a case of SCVC treated with surgery and radiotherapy, who presented with multiple cutaneous metastases mimicking an inflammatory skin lesion.

CASE REPORT

A 60-year-old patient presented with hoarseness of 6 months duration. Local examination revealed growth on the right vocal cord is extending to the

anterior commissure and the opposite vocal cord. The histopathological examination revealed moderately differentiated squamous carcinoma (MDSC). Computed tomogram scan revealed erosion of right lamina of the thyroid cartilage. The patient was treated by total laryngectomy with bilateral lateral neck dissection, followed by external beam radiotherapy. The final postoperative histopathology also revealed the involvement of the right side of the thyroid cartilage and a single lymph node of <3 cm by regional metastasis on the right side. The staging of the vocal cord malignancy was T4N1M0 (Stage IV). On the follow-up after 3 months upon completion of the treatment, the patient presented with multiple painful eruptions on the skin of neck, trunk, thigh, left little finger and on the chin of 15 day's duration [Figure 1]. On local examination, the neo-pharynx was normal, and there were no palpable lymph nodes on the neck. The cutaneous swellings were discrete nodular, inflamed and tender. The size of the skin nodules was around 1 cm and the largest measuring 1.5 cm × 1.5 cm approximately. There was no ulceration on any of the skin nodules. Fine-needle aspiration cytology (FNAC) from multiple nodules revealed features of metastatic squamous carcinoma [Figure 2]. The revised staging was T0N0M1 (Stage IVc). The patient was further treated by palliative oral chemotherapy with methotrexate 15 mg once a week and celecoxib 200 mg twice daily for 1 month to be followed-up at monthly interval and symptomatic treatment was also added.

Access this article online

Quick Response Code:



Website:

www.ccij-online.org

DOI:

10.4103/2278-0513.142659

Address for correspondence: Dr. Kishore Das, Room No 110, OPD Block, Head and Neck Oncology, Dr. B Borooah Cancer Institute, Guwahati - 781 016, Assam, India. E mail: dr.kishore.das@gmail.com



Figure 1: It shows the multiple metastatic skin nodules

DISCUSSION

Distant metastasis in head and neck cancers, including SCVC is usually seen to the lungs.^[3] Cutaneous metastases are either single or multiple and discrete nodules. A recent study by El Khoury *et al.* has shown that out of all cutaneous metastasis in cancers, laryngeal cancers in males (18%) are most common to develop cutaneous metastasis.^[4] Our case was also a male patient of SCVC with cutaneous metastasis. Cutaneous metastasis from laryngeal cancers is not so uncommon in males though. Cutaneous metastasis from laryngeal and hypopharyngeal are usually pain less.^[5,6] In our case, the patient had painful cutaneous metastasis and mimicked an inflammatory lesion of the skin. Similar painful or inflammatory cutaneous metastasis has been also demonstrated in epidermoid laryngeal cancers after long period following loco-regional recurrence.^[7] The case of painless cutaneous metastasis in laryngeal cancers also occurred at long-term follow-up period.^[5] A case of single cutaneous metastasis of laryngeal cancer following surgery was reported at the 18 months follow-up.^[8] Another case of multiple cutaneous metastases was reported at 12 months following treatment for laryngeal squamous carcinoma.^[9] However, in our case, multiple cutaneous metastases following SCVC occurred at the 3 months from the completion of treatment. Out of all available literature on cutaneous metastasis from laryngeal cancers, our case was unique in its presentation, because of the appearance of cutaneous metastasis in a short span of time following the treatment of the primary lesion. The mechanism of metastasis to skin in epidermoid cancers of the head and neck could be due to local spread, lymphatic or by the hematogenous route.^[10] In our case, there were two discrete regional lesions of skin metastasis on the neck and one was near the stoma, which could be due to the loco-regional spread. But, since there were disseminated cutaneous metastases, so it was more likely to have been due to the hematogenous spread. Furthermore, there was

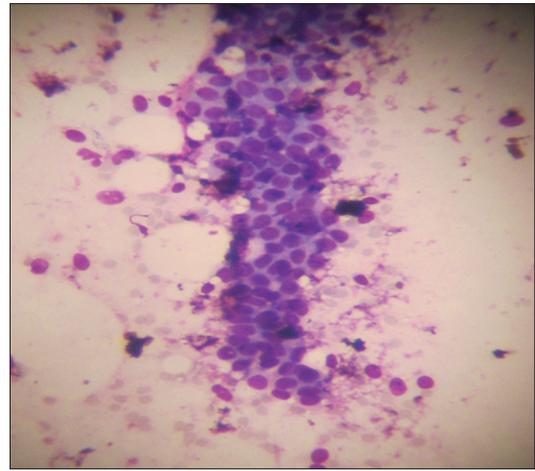


Figure 2: Photomicrograph with May–Grunwald–Giemsa stain ($\times 10$) showing cellular clusters of neoplastic cells with hyperchromatic nuclei and a variable amount of cytoplasm

no evidence of loco-regional disease. Interesting to note was the absence of pulmonary metastasis, as hematogenous spread would have passed via the pulmonary circulation. The diagnosis of cutaneous malignancy should be made by histology or cytological examination. Our case was diagnosed by cytological examination following FNAC, which showed metastatic skin lesion. In the present case as the skin nodules were painful and inflamed so, histological examination by a tissue biopsy was not considered. Histologically basaloid squamous carcinoma, which is an aggressive variant of squamous carcinoma is more likely to undergo cutaneous metastasis in patients with SCVC.^[11,12] Our case was initially a histologically MDSC of the vocal cord.

In solitary skin metastasis, local wide excision can be planned as curative form of treatment, but in case of multiple cutaneous metastases the intention of treatment will be symptomatic relief and improving the quality of life. Thus, our patient was managed by palliative metronomic chemotherapy. The patient was lost to follow-up soon after that and hence we do not have any information on the survival status of this patient.

CONCLUSION

We would like to add this extremely rare case of cutaneous metastasis in a patient with SCVC mimicking inflammatory skin lesions. Appearance of new painful skin lesions soon after the completion of treatment in patients treated for SCVC should warrant a clinical suspicion of cutaneous metastases.

REFERENCES

1. Pitman KT, Johnson JT. Skin metastases from head and neck squamous cell carcinoma: Incidence and impact. *Head Neck* 1999;21:560-5.
2. Krathen RA, Orengo IF, Rosen T. Cutaneous metastasis: A meta-analysis of data. *South Med J* 2003;96:164-7.

3. Calhoun KH, Fulmer P, Weiss R, Hokanson JA. Distant metastases from head and neck squamous cell carcinomas. *Laryngoscope* 1994;104:1199-205.
4. El Khoury J, Khalifeh I, Kibbi AG, Abbas O. Cutaneous metastasis: Clinicopathological study of 72 patients from a tertiary care center in Lebanon. *Int J Dermatol* 2014;53:147-58.
5. Kumar N, Bera A, Kumar R, Ghoshal S, Angurana SL, Srinivasan R. Squamous cell carcinoma of supraglottic larynx with metastasis to all five distal phalanges of left hand. *Indian J Dermatol* 2011;56:578-80.
6. Shindo M, Yoshida Y, Tominaga K, Yamamoto O. Skin metastasis of hypopharyngeal carcinoma to the nasal tip. *Yonago Acta Med* 2013;56:57-8.
7. Bottoni U, Innocenzi D, Mannooranparampil TJ, Richetta A, Del Giudice M, Calvieri S. Inflammatory cutaneous metastasis from laryngeal carcinoma. *Eur J Dermatol* 2001;11:124-6.
8. Aydin O, Ustündag E, Boyaci Z, Müezzinoğlu B. Skin metastasis: An unusual localization from laryngeal carcinoma. *Kulak Burun Bogaz Ihtis Derg* 2004;12:103-6.
9. Shamsadini S, Taheri A, Dabiri S, Damavandi KF, Salahi S. Grouped skin metastases from laryngeal squamous cell carcinoma and overview of similar cases. *Dermatol Online J* 2003;9:27. Available from: http://www.escholarship.org/uc/item/64j6_g9kx. [Last cited on 2014 Jul 08].
10. Kmucha ST, Troxel JM. Dermal metastases in epidermoid carcinoma of the head and neck. *Arch Otolaryngol Head Neck Surg* 1993;119:326-30.
11. Shvili Y, Talmi YP, Gal R, Kessler E, Kolkov Z, Zohar Y. Basaloid-squamous carcinoma of larynx metastatic to the skin of the nasal tip. *J Craniomaxillofac Surg* 1990;18:322-4.
12. Koutis EV, Assimakopoulos DA, Doukas MG, Zinovieva I. A rare nasal tip skin metastasis of a basaloid squamous cell carcinoma of the larynx. *Am J Med* 2008;121:e3-4.

Cite this article as: Das K, Krishnatreya M, Baishya N, Sarma A, Kataki AC. Multiple cutaneous metastases in laryngeal carcinoma: A rare occurrence. *Clin Cancer Investig J* 2014;3:533-5.

Source of Support: Nil, **Conflict of Interest:** None declared.