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Multiple cutaneous metastases from laryngeal carcinoma

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Abstract
A case of laryngeal squamous cell carcinoma recurrence presenting as multiple cutaneous metastases is presented. Such metastases are rare and are associated with a poor prognosis. Treatment is usually aimed at providing pain relief in these patients with a limited life expectancy.

Key words: Laryngeal neoplasms; Carcinoma, squamous cell; Neoplasm metastasis; Skin

Introduction

Distant metastases in laryngeal carcinoma are rare and when present, commonly involve the lung (Robin and Olofsson, 1987). We present a case of laryngeal cancer presenting with multiple metastases to the skin two years after surgery despite adequate local control.

Case report

A 50-year-old male had undergone a total laryngectomy, partial pharyngectomy, left radical neck dissection and right functional neck dissection for a laryngeal squamous cell carcinoma (T_4 N_{2c} M_0) in 1994. He had a course of radiotherapy in the post-operative period as he had presented initially with invasion of thyroid cartilage and bilateral nodal metastases in the neck. He was clinically free of recurrent disease at subsequent follow-up visits. Two years after his surgery, he presented with painless swellings over the left clavicle and the left parietal region of the scalp at a follow-up visit to the Head and Neck Oncology clinic. He was also being treated with a course of antibiotics by his general practitioner for a presumed paronychia affecting the left little toe – apparently with a poor response.

Examination revealed a hard, fixed, non-tender cutaneous nodule over the left clavicle and the left parietal region of scalp. Further examination showed a cutaneous nodule on the dorsum of the right hand overlying the base of the first metacarpal and an inflamed and ulcerated left little toe with a purulent discharge. There was no evidence of recurrent disease in the neck. A plain X-ray of the foot demonstrated destruction of the terminal phalanx of the little toe. A chest X-ray and a bone scan did not show any evidence of further metastatic disease. Fine needle aspiration cytology of the scalp nodule yielded cells suggestive of squamous cell carcinoma.

The patient underwent excision of the nodules over the scalp and clavicle, a localized amputation of the left little toe and a course of radiotherapy to the foot. Histopathological examination confirmed the metastases at cutaneous sites and in the terminal phalanx of the left toe. The patient went on to develop further cutaneous nodules over the abdomen, back and in the groin. The disease in the foot progressed to involve the metatarsals causing incapacitating pain that necessitated a below-knee amputation. On this occasion left lung metastases were noted. While being treated palliatively in the hospital, he developed peritonitis secondary to rupture of viscus for which he did not receive

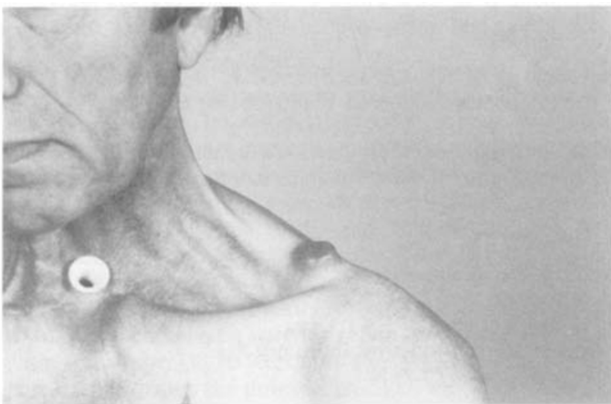

FIG. 1
Metastatic lesion on shoulder.

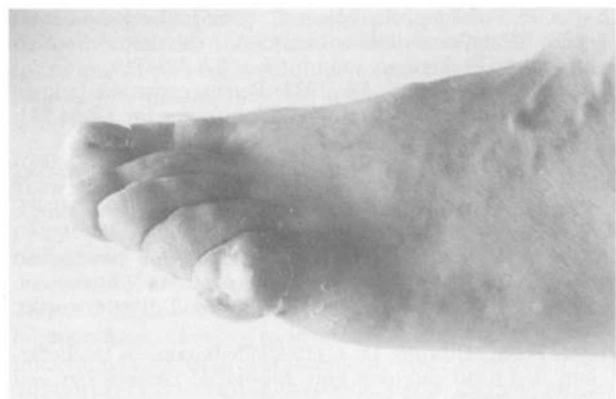

FIG. 2
Metastatic lesion involving little toe.

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active treatment in view of his disseminated metastases. He died four months after the appearance of the first cutaneous metastases.

Discussion

Cancers arising in the oral cavity are the commonest head and neck cancers metastasizing to skin (Brownstein and Helwig, 1972). Review of the surgical literature revealed only five previously reported cases of cutaneous metastases from squamous cell carcinoma of the larynx (Veraldi *et al.* 1988; Horichi and Tagani, 1992). More commonly the skin of the neck region is involved due to direct extension from fungating nodal metastases. Multiple metastases from a laryngeal carcinoma involving the skin of the head and neck region, abdomen and the upper and lower extremities as described above, are very rare.

Cutaneous metastases from laryngeal carcinoma may present as non-tender firm nodules, as sclerodermoid lesions or may mimic an inflammatory process (Brownstein and Helwig, 1973). Similarly pedal metastases frequently present as infective lesions (Mess and Songer, 1986). These metastases may fungate if untreated as was evident with the metastatic nodule involving the left little toe in our patient. The diagnosis is confirmed by cytology and histopathological examination of excised lesions. Treatment is essentially aimed at providing symptomatic relief and improving the quality of remaining life. Although in our case the first skin metastases were excised at the patient's insistence, further treatment offered was essentially palliative as numerous metastases developed rapidly at different sites.

The prognosis for these patients remains dismal and the average length of survival is three months after diagnosis of cutaneous metastases (McKee, 1983). At initial presentation in 1994, our patient revealed direct invasion of thyroid cartilage and bilateral nodal disease in the neck – a sign of advanced disease. Despite a disease-free interval of two years, presentation with cutaneous metastases heralded rapid dissemination of the disease as he went on to develop further cutaneous and pulmonary metastases.

This case underscores the importance of considering metastasis in the differential diagnosis of a new swelling appearing in a patient previously treated for head and neck cancer. Any apparently infected lesion not responding to conventional antibiotic therapy should be biopsied to exclude metastatic involvement.

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