JOURNAL OF CASE REPORTS 2015;5(1):219-221

Acral Metastasis from Head and Neck Squamous Cell Carcinoma

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Abstract:

Acral metastasis from head and neck squamous cell carcinoma (HNSCC) presents rarely. We are describing a case who presented with numerous metastasis involving the right palm, distal phalanges, and subungual metastasis. This brief report reflects the importance to increase clinical awareness of metastatic spread of head and neck cancer to unusual sites in the setting of increasing cancer survivorship.

Key words: Head and Neck Neoplasms, Squamous Cell Carcinoma, Radiotherapy, Weight Loss, Brain.

Introduction

Metastases to unusual sites from HNSCC have been reported [1-4]. Dermal metastases occur in 1%-2% of patients with HNSCC [5]. Acral metastasis is an unusual presentation, which may mimic an infectious or inflammatory pathology. The understanding of the pathogenesis of skin metastases in HNSCC is poor.

Mechanisms suspected with the development of skin metastasis include direct spread, local spread, and distant spread [6]. In our case, haematological spread was suspected as the patient had visceral involvement as well numerous skin lesions in his right hand.

Case Report

A 69-year old man presented with a one-month history of multiple painful nodules on his right hand and several swellings on the tips of his fingertips that affected his ability to perform activities of daily living. His history was significant for a left piriform sinus HPV-negative squamous cell carcinoma, cT4N2c. Treatment included intensity-modulated radiotherapy (IMRT) 70 Gray in 35 fractions and combination cisplatin (100 mg/m^2 Day 1, 22, 43). He completed treatment in November 2012 and remained disease free until July 2014 when he presented with general malaise and weight loss. CT head/thorax/abdomen/pelvis revealed multiple brain, liver and lung metastasis.

He went on to receive whole brain radiotherapy, and his systemic therapy was combination paclitaxel and cetuximab. After two cycles of chemotherapy, he started to complain of multiple painful nodules on his right palm. These nodules grew rapidly over a month. They were

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Received: March 19, 2015 | **Accepted:** May 1, 2015 | **Published Online:** May 20, 2015

Conflict of interest: None declared | **Source of funding:** Nil | **DOI:** http://dx.doi.org/10.17659/01.2015.0054

painful to touch. He also developed right axillary adenopathy. In early December 2014, he developed multiple new painful nodules of the right palm and new right axillary adenopathy. These nodules were erythematous, raised and painful to touch [Fig. 1]. A fine needle aspiration from a nodule on the right palm was metastatic squamous cell carcinoma consistent with his previous head and neck primary. Following discussion at a multi-disciplinary team meeting he received palliative radiotherapy, 20Gy in 5 fractions to his palm. He tolerated treatment well with good symptomatic response. However, the patient passed away as a result of respiratory sepsis secondary to disease burden two months following palliative radiotherapy.

Discussion

We are reporting a rare case of left hypo-pharyngeal squamous cell carcinoma presenting with multiple dermal acral metastases of the right hand. This case is unusual for a number of reasons. First, this is a rare metastatic site for a head and neck cancer. Dermal metastases occur in 1%–2% of patients with HNSCC [5]. Acro metastases more commonly are associated with a number of other malignancies including lung, breast, colon, and kidney carcinoma [7,8]. HNSCC metastasis to the cervical lymph nodes is the most common site of failure [9]. Less frequently distant metastasis occurs. The most commonly affected sites for distant metastases are the lungs (66%), bone (22%), liver (10%), mediastinum, and bone marrow [10].

Multiple acral metastases from a head and neck carcinoma is extremely rare. Poor understanding exists on the mechanism by which acral metastases occur in HNSCC. Several hypotheses exist. Contiguous spread via tissue planes is the potential pathway of direct spread. Local spread occurs through dermal lymphatics with implantation in the skin. Hematogenous spread is responsible for distant metastasis [11].

Fig.1: Multiple acral metastasis.

In this case, the skin metastasis most likely occurs due to spread by haematogenous route. We suspect this as the patient had multiple bilateral lung and multiple subcutaneous nodules along with cutaneous phalangeal metastasis. This case presented with tender firm nodules, consistent with other case reports [12,13]. We performed diagnostic confirmation by histopathological examination of the lesions. We compared the pathology to his previous diagnosis. The limited number of cases of skin metastases from HNSCC makes it difficult to determine the treatment of choice. Improving quality of life and providing symptomatic relief is the aim of treatment in a patient with acral metastasis. With solitary skin metastases to a digit, one could consider amputation of a finger or localized radiation [14]. In this case, the patient had multiple sites of involvement on the right hand, so it was felt that palliative radiotherapy ought to be the treatment of choice.

Prognosis for patients with acral metastasis is poor [12,13]. This patient originally presented in 2012. Following presentation with distant cutaneous metastases the patient's condition deteriorated rapidly. Unfortunately, he passed away two months following palliative radiotherapy, highlighting the importance of considering metastases in a patient presenting with a new skin swelling with a history of previous treatment for head and neck cancer.

Cases like this should have expedited palliative treatment, due to the patient's poor prognosis. This case highlights the importance of careful examination of the skin in patients with a remote history of HNSCC [11,14].

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