

Small cell carcinoma of Lung metastasis to skin –A case report

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Abstract: A 40 year-old male, known case of small cell carcinoma lung presented with multiple painless, cutaneous nodules in the lumbar area of 2 months duration. Fine needle aspiration was done and revealed metastatic deposits of small cell lung carcinoma (SCLC). Lung carcinoma infrequently metastasizes to the skin. However, these lesions, when present, have important prognostic implications since these patients typically respond poorly to chemotherapy and have a mean survival of about five months. Careful skin examination is essential in the evaluation of patients with possible bronchogenic carcinoma.

Keywords: Bronchogenic carcinoma, cutaneous metastases, small cell lung cancer (SCLC).

INTRODUCTION

Cutaneous metastases from the lung are frequently moderately or poorly differentiated [1, 2]. In fact, undifferentiated cutaneous metastases most often originate from the lung in men, breast in women, or melanoma [3, 4]. They typically invade the lymphovascular system and are usually limited to the dermis and subcutaneous layer [5]. The most common type is adenocarcinoma (AC), followed by squamous-cell carcinoma or small-cell carcinoma, and then large-cell carcinoma (LCC) [2, 5-8]. Lung cancer patients who present with cutaneous metastasis have a poor prognosis, with a mean survival of approximately five months [9]. We present a rare case of cutaneous metastasis in a patient with small cell lung cancer which was diagnosed on FNAC and later confirmed on histopathology. Immunohistochemistry with synaptophysin was positive.

CASE REPORT

A 40 year-old male chronic smoker, normotensive, non-diabetic presented with multiple painless cutaneous nodules in the right lumbar region of 2 months duration. The nodules ranged from 1-3 cms in diameter. The nodules had progressively increased in size over the said time period. Nodules were firm to hard, adherent to the overlying skin and not fixed to the underlying structures (Fig. 1). The patient had a past history of chronic cough with expectoration and pleuritic type of chest pain. Chest X-ray showed a mass lesion in the right hilar region. CECT showed a heterogeneously enhancing mass lesion in relation to the right hilar region, obstructing the right lower lobe bronchus, along with mediastinal lymphadenopathy (Fig. 2). Bronchoscopy revealed an intra-luminal lesion

in bronchus intermedius causing occlusion of the right middle lung lobe. A bronchoscopic biopsy was taken which on histopathology revealed small cell carcinoma of the lung, following which the patient received chemoradiation. The patient's general condition improved and the pulmonary symptoms resolved. Six months after the completion of chemoradiation, patient developed skin nodules which progressively increased in size. To rule out metastasis to other sites CT head and abdomen was done. There was no evidence of any metastases to these sites. A fine needle aspiration of the skin nodules revealed cellular smears with mostly dispersed cells and few cell clusters. The individual cells were small with scant cytoplasm, nuclear moulding, irregular nuclei, finely granular nuclear chromatin and inconspicuous nucleoli. Cystic macrophages were seen many which had engulfed apoptotic bodies. Many mitotic figures were seen as well, these features were consistent with metastatic deposits of small cell carcinoma lung (Fig. 3). The fine needle aspiration was followed by an excision biopsy of one of the nodules and histopathology confirmed the diagnosis of metastatic deposits of small cell carcinoma lung (Fig. 4). Patient is presently being given chemoradiotherapy, excision was not considered due to multiplicity of the skin lesions.

cutaneous metastasis. The histological subtype can be diagnosed by biopsy, and imaging with chest radiographs and computed tomography is used to identify the primary site. Staging is done by PET/CT and MRI of the brain. Treatment of solitary skin metastasis includes surgery combined with either or both chemotherapy and radiation; multiple cutaneous lesions may be better treated with chemotherapy [14]. In this case also patient is being given combined chemoradiotherapy. Patients with resectable skin lesions have better survival than those with multiple, non-resectable sites and are candidates for surgery [18].

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