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Pulmonary adenocarcinoma revealed by a skin metastasis : case report

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Abstract

The frequency of cutaneous metastasis is estimated at 4% of visceral cancers. They are rarely indicative of extra-dermatologic cancers, however, recognizing a cutaneous metastasis or paraneoplastic dermatosis can be of great diagnostic and / or prognostic value. We report a 51 year old patient presented with cutaneous metastasis indicative of a pulmonary adenocarcinoma. She received radiotherapy combined with chemotherapy without remission and died after five months.

Introduction

Cutaneous metastasis frequency is estimated at 4% of visceral cancers [1]. The lung cancer and breast cancer are the commonest providers of cutaneous metastasis [2]. Among lung cancers, large cell carcinoma is the one that accompanies most cutaneous metastasis, followed by adenocarcinoma. We report a patient with poorly differentiated pulmonary adenocarcinoma, which was revealed by cutaneous metastasis associated with liver, adrenal, bone and soft tissue metastasis.

Case report

A 51- year-old woman was admitted with subcutaneous nodules, asthenia, anorexia, weight loss and fever of 38.5° C. The symptoms had been present for one month. The physical examination at admission revealed multiple subcutaneous nodules involving the back and trunk, firm without

signs of inflammation **(Fig 1)** and enlarged liver (liver metastasis).

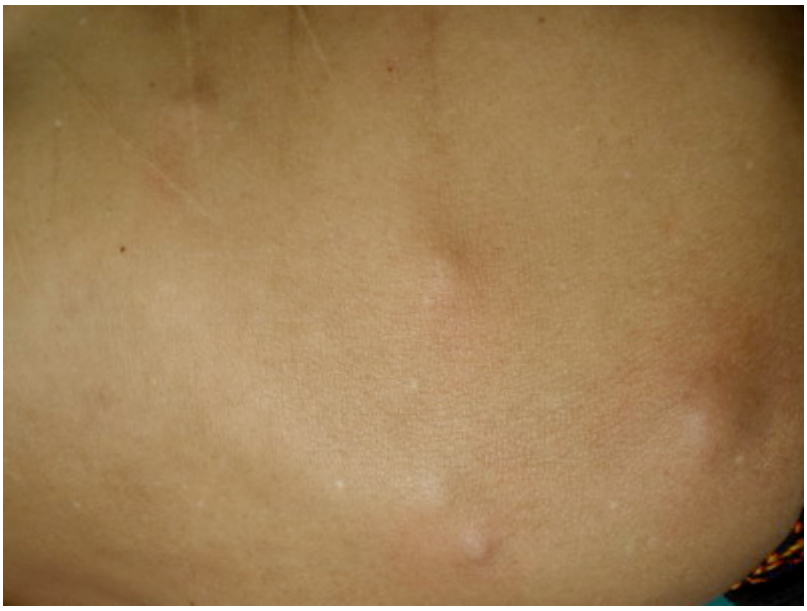

Fig 1: Subcutaneous nodules, firm, very limited, affecting the back and trunk.

Laboratory tests showed biological inflammatory syndrome (erythrocyte sedimentation rate = 80 mm in the first hour and C-reactive protein=60mg/l). Sputum and urine tests were negative for the tuberculosis bacillus, as well as urine culture and viruses serology (HIV, B and C hepatitis) were negative. Chest radiography showed a left retrocardiac opacity.

A nodule excisional biopsy was performed and histology showed a dermis and hypodermis infiltrated by a carcinomatous proliferation **(Fig 2,3,4,5)**. The diagnosis of cutaneous metastasis was chosen and a series of additional investigations were undertaken in search of a primary tumor.

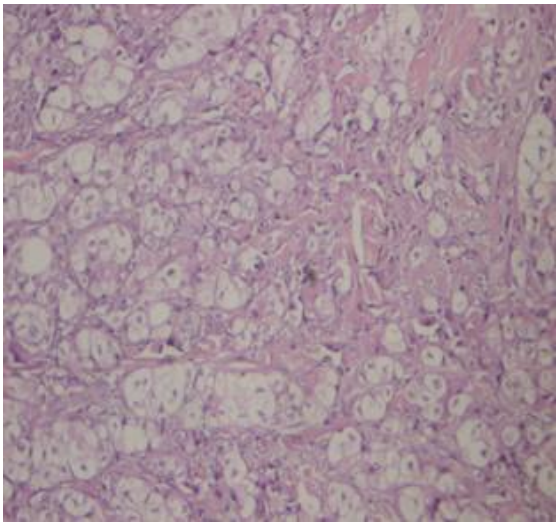

Fig 2

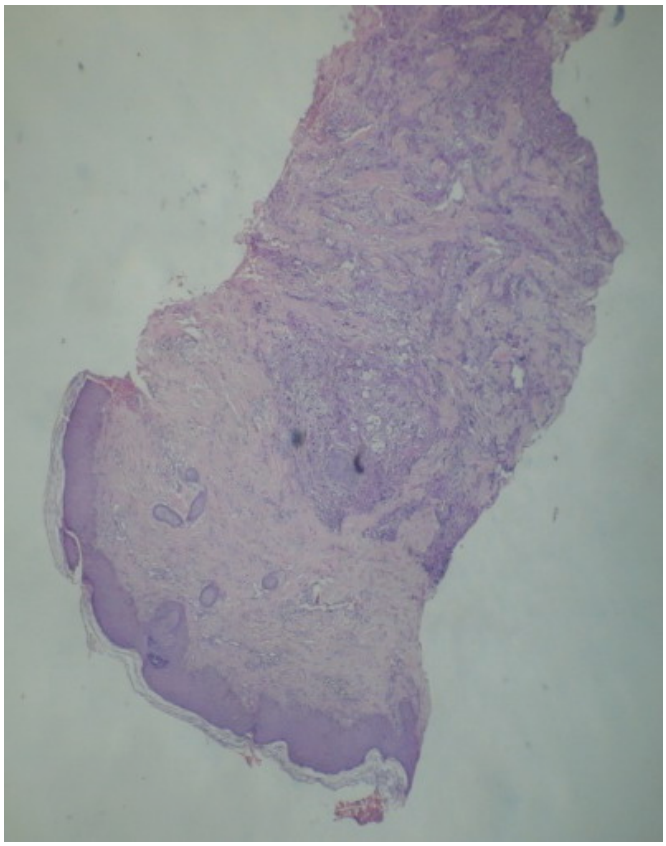

Fig 3

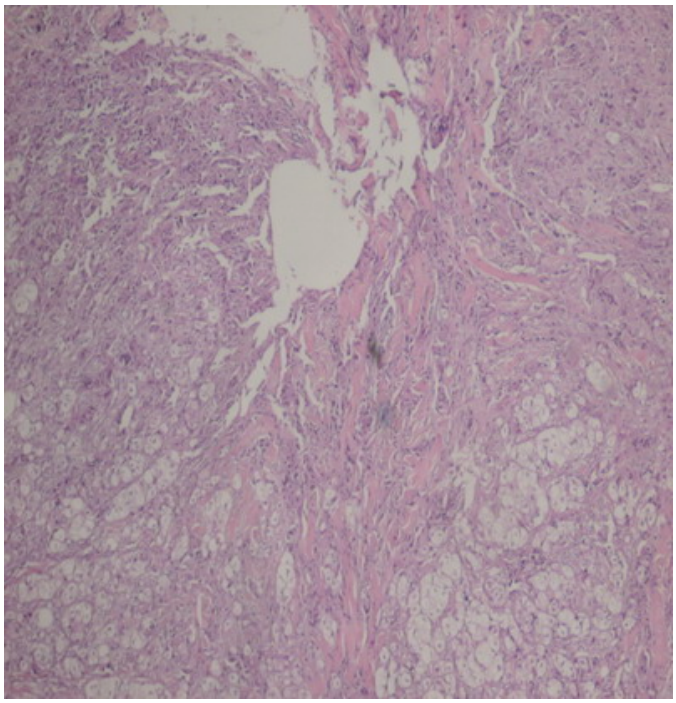

Fig 4

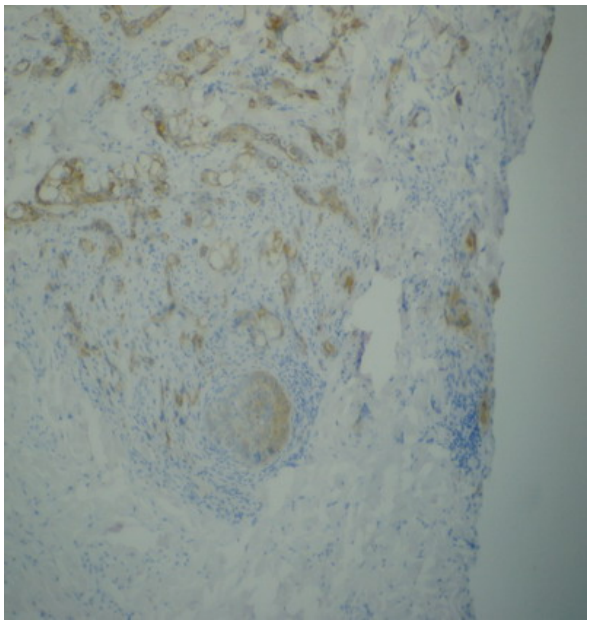

Fig 5

Fig 2, 3, 4,5: Diffuse infiltration of the dermis and hypodermis by a cancerous proliferation of cells made with abundant, clear and eosinophils cytoplasm . The nuclei are atypical. Tumor cells express cytokeratin.

The CT scan revealed a left bilobar pulmonary mass associated with homo and contralateral lymph nodes, liver, adrenal, bone and parts soft tissue metastasis **(Fig 6,7)**.

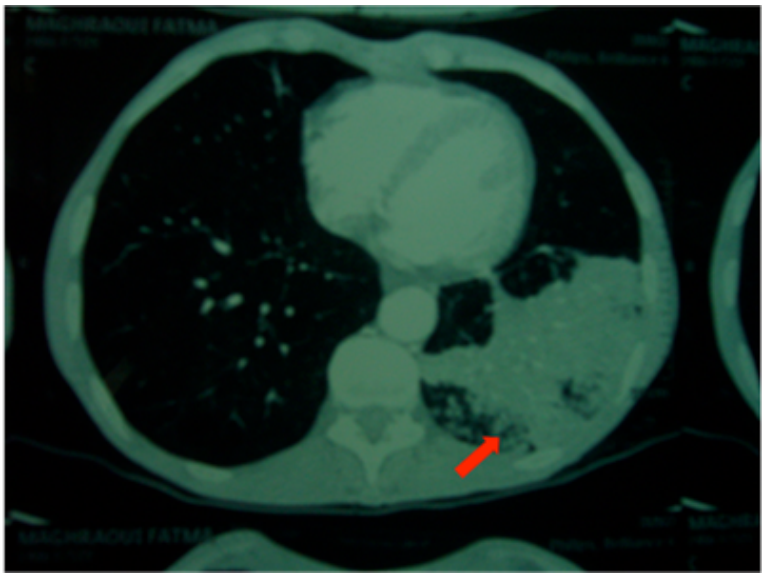

Fig 6

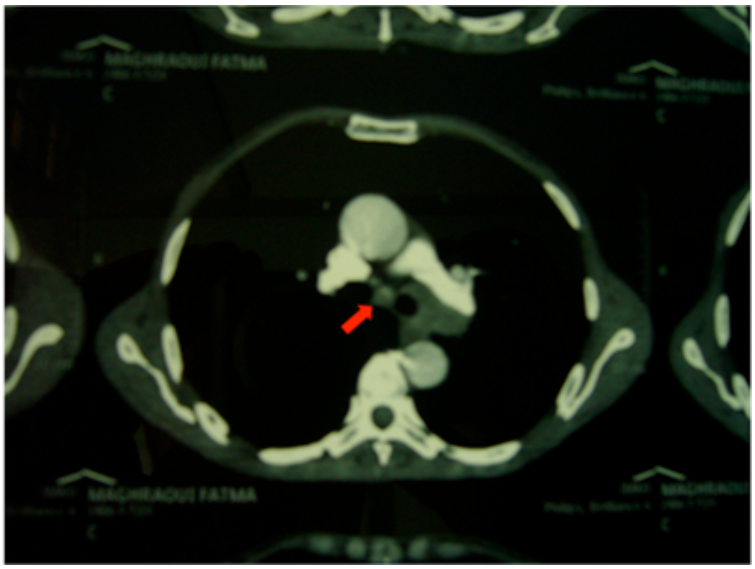

Fig 7

Fig 6,7: Left bilobar pulmonary mass associated with homo and contralateral lymph nodes.

Bronchoscopy showed an inflammatory and thickened left main bronchus and its terminal portion. The orifice of the left lower lobe bronchus was not catheterisable. The left upper lobe bronchus is reduced in size. The mucosa is hemorrhagic. Trans-bronchial biopsy was performed and histological examination confirmed the presence of a poorly differentiated adenocarcinoma. This patient's cancer was classified T4N2M1b and the patient was proposed for palliation treatment. She received radiotherapy combined with chemotherapy without remission, and she died after five months.

Discussion

Cutaneous manifestations of cancer, rarely revealing extra skin cancers are of two types: Paraneoplastic dermatosis and cutaneous metastasis. Paraneoplastic dermatosis do not have the malignancy characters and the development is parallel to the tumor.

The cutaneous metastasis, in contrast, have a dermal or subcutaneous tumor growth made of extra skin malignant cells. The skin is normally considered an infrequent site of deep cancers metastatic [3]. Cutaneous metastasis frequency is estimated at 4% of visceral cancers [1]. The lung cancer and breast cancer are the most providers of cutaneous metastasis [2].

According to data from the literature between 0.9% and 8.7% of patients with lung cancer have developed cutaneous metastasis [4-7]. Skin metastasis may be indicative of the disease in 0.19% of cases [7], which was the case with our patient. Among lung cancers, large cell carcinoma is the one that provides most cutaneous metastasis, followed by adenocarcinoma, small cell lung cancer and squamous cell carcinoma respectively. Clinically, the cutaneous metastasis most often presents one or more subcutaneous nodules which are hard, mobile, covered with normal or inflammatory skin, and are usually painless. They vary in size from a few millimeters to several centimeters. The spontaneous evolution is towards necrotic ulceration with frequent super-infection. Sometimes it is a carcinomatous lymphangitis, erythematous closet, occurring in the cutaneous territory next to the primary tumor [4]. The presence of cutaneous metastasis is usually an advanced evolutionary stage of cancer [8] since it is frequently associated with other metastasis. In the case of our patient, the cutaneous metastases were associated with liver, adrenal, bone and soft tissue metastasis.

The treatment of cutaneous metastasis when they are small and few in number may be covered by surgical excision or radiotherapy if the tumor is radiosensitive. Unresectable metastasis can sometimes benefit from palliative radiotherapy to analgesic. The indication for chemotherapy follows the regimens specific to the primary tumor.

Conclusion

Any skin lesion that has not proven its etiology should be investigated for a neoplastic affection. Histological study allows rapid orientation and avoids the diagnosis and therapy delay

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