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Case Report

Thyroid follicular carcinoma complicating with skin metastasis

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ABSTRACT

Introduction: Thyroid cancer is the most common endocrine malignancy. Lung is the most metastatic site of the disease. Distant metastasis to skin has been rarely reported in the literature.
Case report: Here we report a follicular thyroid cancer patient complicating with skin metastasis.
Conclusion: Our case reminds us the rare possibility of skin metastasis during the follow up of disseminated TC and importance of cutenaous lesions in differential diagnosis of unexplained symptoms.

1. Introduction

Thyroid cancer (TC) is the most common endocrine malignancy. Papillary subtype, representing more than %80 of TC, is metastatic via lymphatic route. Medullary and anaplastic variants have a tendency for hematogenous dissemination, especially to lung, liver, bone and brain.[1] Distant metastasis to skin has been rarely reported in the literature. Here, a follicular TC patient complicating with skin metastasis is presented.

2. Case report

A 57 year old female patient with a 7 years history of ischemic heart disease, presented with 4 cm thyroid mass with compressive symptoms. Diagnostic workup revealed a follicular TC and thyroidectomy was performed. With post surgical radioactive iodine therapy (RIT), patient was treated with L-thyroxine replacement. Two year after surgery, metastatic lesions in the lungs were detected and patient was followed with RIT. With progression after 2 courses of RIT, patient was referred to our clinic for evaluation for palliative chemotherapy but the comorbidity and the performance status were not suitable for cytotoxic therapy. Sorafenib was planned for palliative intent. During the diagnostic process, patient presented with ulcerating painful masses at different sites of the body and pain on the left upper quadrant of abdomen. Physical examination revealed ulcerated skin mass on the right scapular region. Painful and tender masses on the anterior aspect of left shoulder, scalp and left upper abdomen were noted (Fig. 1a/b). Masses were between 1 and 7 cm diameters, with rubbery consistency, loosely adherent to the skin, tender, not adherent to the underlying tissues. After exclusion of other causes for severe abdominal pain, patient was treated with narcotic analgesics and pain progressively improved. The 2 months of history with rapid increase in tumor size convey us for a diagnostic workup for metastasis of the primary pathology. Biopsy of the lesion on the scapula was consistent with the diagnosis of follicular TC metastasis (Fig. 1c/d). With sorafenib therapy partial response was achieved for pulmonary lesions and skin lesions.

3. Discussion

Thyroid cancer has a female predominance and it's the 5th most common cancer in women.[2] Excluding anaplastic variant, TC has a benign course. Metastases are mainly to regional lymph nodes. Even in metastatic cases slow progression is a rule. Distant metastases are usually to lung or liver; rarely brain and skin involvement has been reported. Multidisciplinary team is necessary for the management of metastatic patients. Active role of medical oncology in therapy takes place at the metastatic, RIT refractory disease. Targeted therapies like, tyrosine kinase inhibitors have

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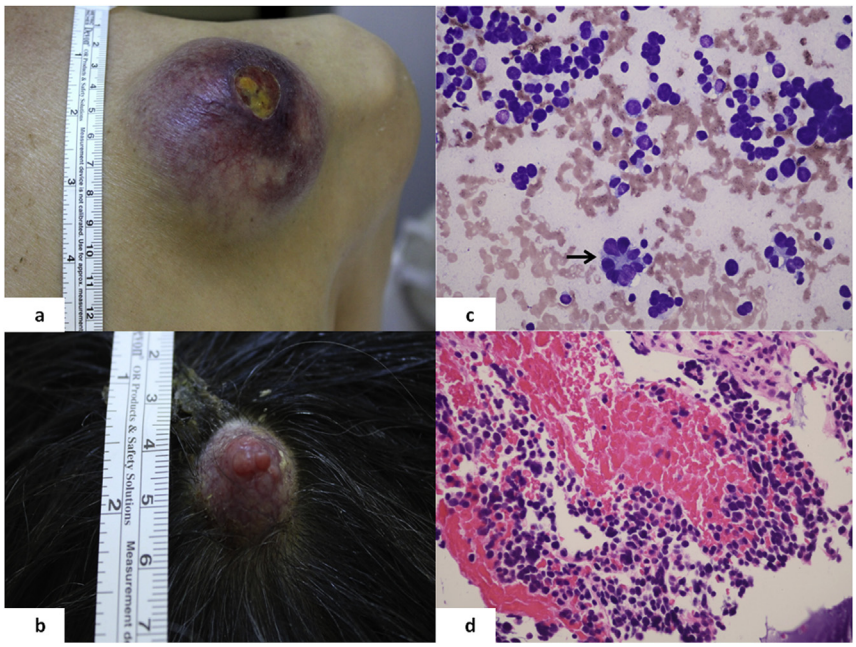

Fig. 1. Ulcerated, 7 × 6 cm mass with serous drainage on the right scapular region (a) and firm, nodular lesion on the scalp (b). c: Many naked tumor cell nuclei and rare microfollicular structures are observed. There is a prominent nuclear pleomorphism in the tumor cells. (May-Grünwald GiemzaX400) (arrow: a microfollicular structure). d: Cell block section indicates many follicular cells embedded in the blood, without significant pattern (H&EX400)

took place in the last 3 years, changing the ineffective cytotoxic drug options to a more effective therapeutic modalities.[3]

Cutenaous metastases of TC have been reported in the literature in nearly 60 patients. Mostly it's a part of disseminated disease and rarely a presentation of occult TC.

Itchy, non-tender slowly growing erythematous nodular lesions on the scalp, face or neck with a history of TC is the classical presentation.[1] Ulceration is not a common finding but reported by Varma et al.[4] Papillary TC has a greater preponderance for skin metastasis and reported cases are mostly papillary variant. Skin metastasis is a poor prognostic factor in TC, the median survival in metastatic patient after the diagnosis of skin involvement is 19 months.[5]

Follicular TC with skin metastasis has been rarely reported in literature constituting less than one third of the cases.[6,7] Our case was clinically similar with the cases reported before. However, the ulceration and destructive effect of mass through skin has not been described before. The tenderness of the masses and painful process refractory to narcotic analgesics at the initial presentation are important distinctive features of our experience. The reported cases were mostly presented as painless, slow growing masses. Abdominal cutenaous involvement of follicular TC has never been reported in literature before. The confusing abdominal pain was a diagnostic challenge for us. Our case reminds us the rare possibility of skin metastasis during the follow up of disseminated TC and importance of cutenaous lesions in differential diagnosis of unexplained symptoms.

Conflicts of interest

None.

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