Occult Follicular Thyroid Carcinoma Presenting As Chest Wall Swelling - A Case Report

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Citation

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Abstract

Distant metastasis from differentiated thyroid carcinoma is a rare manifestation. Follicular thyroid cancer rarely manifests itself as a distant metastatic lesion. [1].
We report a 67 year old woman with no history of thyroid disorders referred for lump over the chest wall with clinical diagnosis of carcinoma of the right breast. The microscopic needle examination of the chest wall swelling showed thyroid follicular cells. The clinical examination of neck was not significant but neck ultrasound demonstrated a solitary nodule in the right lobe of the thyroid. US guided fine-needle aspiration of the thyroid nodule confirmed follicular neoplasm. Subsequent CT chest and abdomen revealed a mass lesion eroding the rib with liver metastasis.
This case of follicular thyroid cancer is reported because of its uncommon initial presentation with chest wall metastasis

INTRODUCTION

Thyroid carcinoma is the commonest endocrinological malignancy. Follicular thyroid cancer (FTC) is the second most common cancer of the thyroid and carries a favorable prognosis. The common modes of presentation of follicular thyroid carcinoma include a solitary thyroid nodule. Distant spread may occur to lung, bone, brain, skin and adrenal gland [1] and the reported incidence of distant metastasis is between 11 and 25%, but the initial presentation is rarely related to metastatic lesion.

In this paper, we describe an asymptomatic patient who presented with chest wall swelling and subsequent workup disclosed as metastatic follicular neoplasm with erosion of ribs involving pleura and multiple liver metastases. This is a rare case of metastatic follicular carcinoma of thyroid with no history of thyroid problem.

CASE

A 67 year old female presented to the surgical OPD with a lump over right breast noticed since 3 months without any other specific symptoms [figure1].

Figure 1

Patient with chest wall swelling

Her past medical history was unremarkable. On physical examination of the right breast- parenchyma, nipple and areola were normal but a fixed lump of 6 cm x 6cm over the

chest wall occupying the 2nd 3rd and 4th rib was found. No axillary or supraclavicular adenopathy was found. Abdominal examination revealed hepatomegaly. The patient was subjected for FNAC, X-ray chest and abdominal sonogram. The FNAC report showed papillaroid structure with clusters resembling thyroid-follicular cells showing mild nuclear atypia. Clinical history was reobtained. She did not mention any history of thyroid enlargement, pain, or other symptoms of thyroid disease. Clinically thyroid examination was found to be normal. Thyroid function test showed normal hormone levels. Then a thyroid ultrasonography was done which revealed a well-defined heterogeneous hyper-echoic mass in the deep part of the right lobe, suspicious for malignancy. Fine needle aspiration cytology obtained from the thyroid gland showed thyrofollicular cell with similar morphology. CECT chest and abdomen were done. A large soft tissue mass over the right chest wall eroding the rib with multiple liver metastases was found [figures 2, 3, 4].

Figure 2

CT chest –large rib lesion

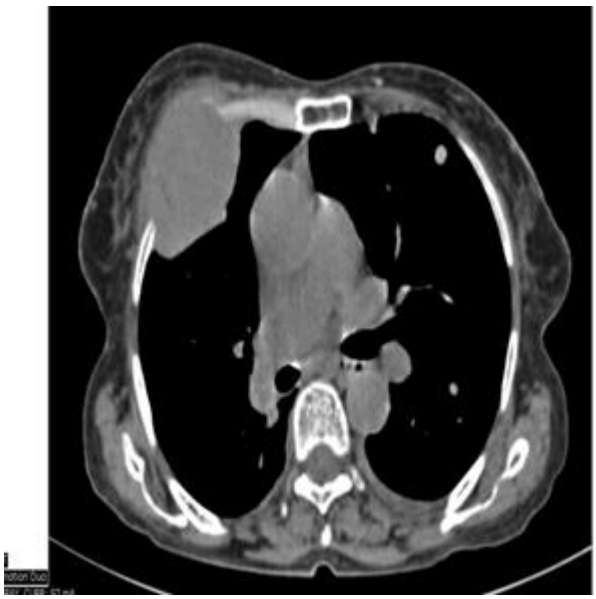


Figure 3

CT neck- thyroid nodule

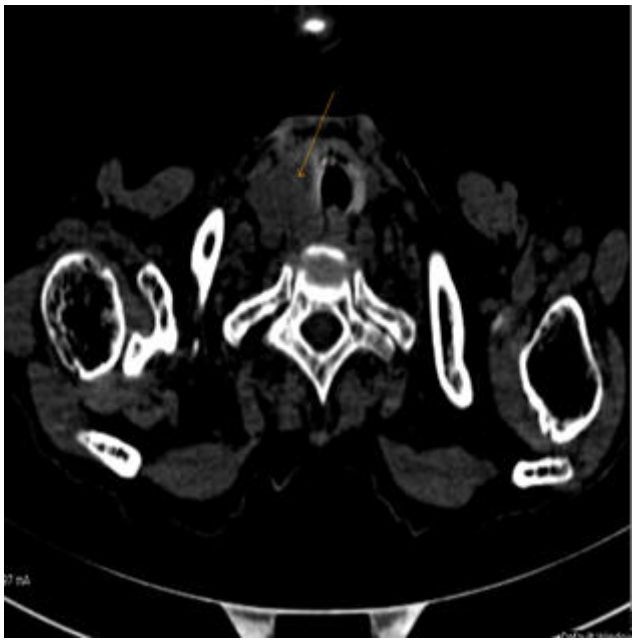
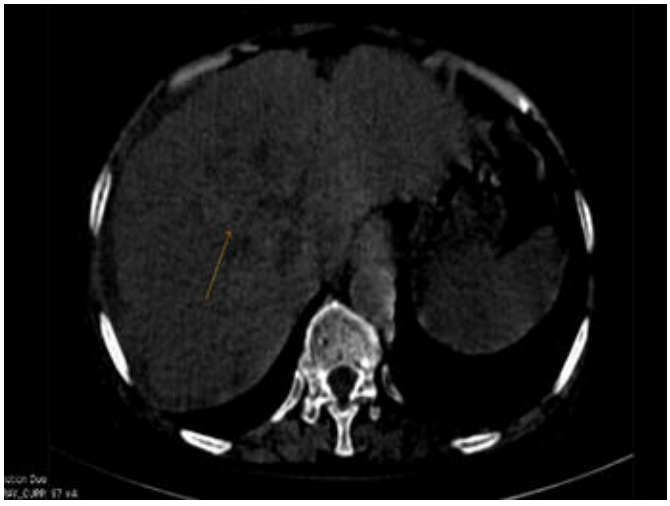


Figure 4

CT abdomen liver metastasis



The final diagnosis came to be FTC with chest wall metastasis and liver secondaries. The Patient and relatives refused to take any treatment at this stage.

DISCUSSION

Follicular carcinoma represents about 10% of thyroid cancers. It usually occurs in regions where dietary intake of iodine is low. Follicular carcinoma differs from papillary in that it occurs at an older age, exhibits haematogenous spread rather than lymphatic dissemination, and is more likely to have local symptoms and a more aggressive behaviour. [2] FTC is the second most common thyroid malignancy. Early

haematogenous spread may occur and the patient may present with distant metastasis to bone, lung, brain, skin and adrenal glands (1, 2, and 3). Rarely, the presence of distant metastasis may be the only initial manifestation of thyroid cancer without clinically apparent disease in the thyroid region.

Distant metastasis was reported to be 25% in a series of 448 patients with FTC (4). Nevertheless, there are very few reports regarding the initial presentation of patients with distant metastasis leading to diagnosis of FTC. Emerick et al. reported two patients (3.6%) with distant metastasis at presentation. [5]

Shaha et al. reported a higher incidence of distant metastases (11%) in a series of 1,038 patients with FTC in which 4% presented initially with distant metastatic disease. [6]

The aggressiveness of FTC varies widely and metastatic disease is the primary cause of death [7, 9].

The incidence of presentation with distant metastatic disease increases in patients over 45 years of age [4]. It is of note that our patient was 67 years of age, supporting that observation.

Although lungs (53%) and bones (20%) were primarily affected by metastasis, the brain, mediastinum, skin, liver and eye were the other involved organ sites. FTC also carries a high mortality rate in patients over the age of 45 years and in those with tumors with the greatest diameter >2.5 cm at the time of diagnosis [7].

In recent years, the therapeutic approaches to patients presenting with distant metastasis are essentially well defined. These include total thyroidectomy if the primary thyroid tumour can easily be resected, followed by radioactive iodine (RI) therapy and suppressive treatment with l-thyroxine[4,8]. In Our case the patient and relatives refused any form of definitive therapy such as total thyroidectomy, RI therapy and chemotherapy at her first admission.

Initial presentation of FTC with an isolated swelling over chest wall prior to the diagnosis of the primary tumors as in our patient is rare. Metastatic FTC should be kept in mind in differential diagnosis of soft tissue masses.

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