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CERVICAL AND MEDIASTINAL RECURRENCE WITH PARIETAL EXTENSION OF PAPILLARY THYROID CARCINOMA

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ABSTRACT

Papillary carcinomas of the thyroid are frequent but they remain of good prognosis. However, recurrent lesions have been noted, mainly in cervical and mediastinal locations. Invasion of the mediastinum with parietal extension is rarely observed. This cervical and mediastinum recurrences lead to a large mass.

KEYWORDS: CT scan, Metastasis, Papillary, Recurrence, Thyroid carcinoma.

INTRODUCTION

Differentiated thyroid carcinomas are the most common endocrine malignancies. They represent 90% of thyroid cancers. Prevalence of thyroid carcinomas varies across world region. An autopsy series of 1,000 subjects showed 2.8% thyroid carcinoma.[1] Differentiated thyroid carcinomas are divided into papillary and follicular carcinomas. Papillary thyroid carcinomas have a good prognosis when early diagnosed. The mode of spread can be either lymphatic or hematogenous. Metastases are rarely indicative of the disease.

CASE PRESENTATION

A 60-year-old man was seeking treatment for a cervical and thoracic mass, which had been evolving for several years but had been aggravated by dyspnea and pain for three months. History included a right thyroid isthmo-lobectomy for heterogeneous goiter but the histological nature of which has not been documented. Clinical examination showed a large, firm, polylobed, anterior paramedian right cervico-mediastinal and thoracic mass with extensive collateral parietal, serpentine thoracic and anterior abdominal circulations (Figure 1).

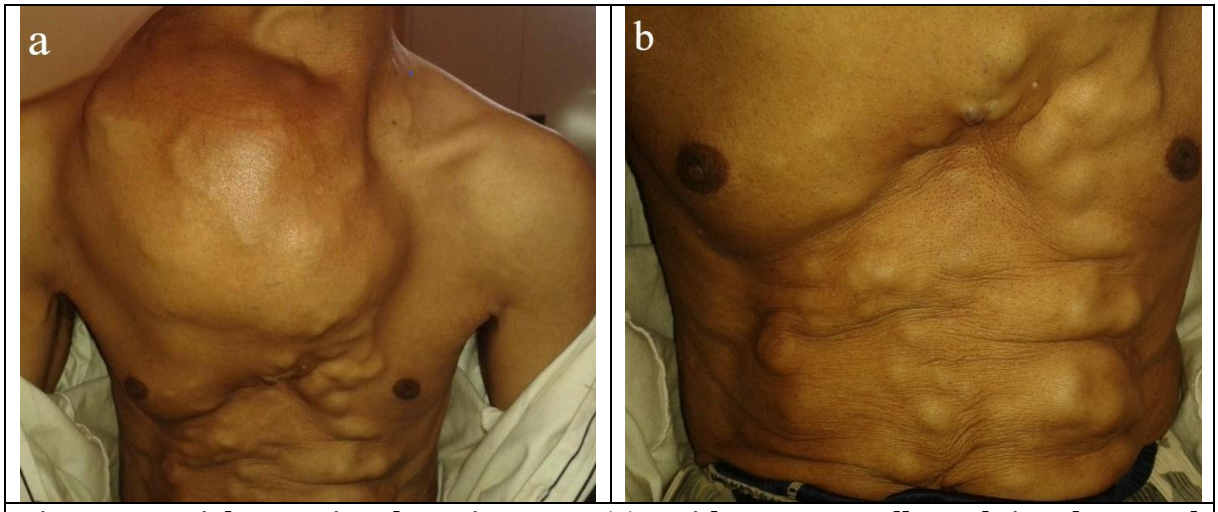

Figure 1: Right cervico-thoracic mass (a), with venous collateral in chest and abdominal wall (b).

Cervico-thoracic CT-scan showed a large cervical mass (Figure 2), which appeared to arise from the right thyroid and plunging into the mediastinum with compression of the superior vena cava, and also a serpiginous parietal collateral veins. This mass was partially calcified and infiltrated the right anterior thoracic wall and pushed back the sternum and with lysis of the right anterior costal bones.

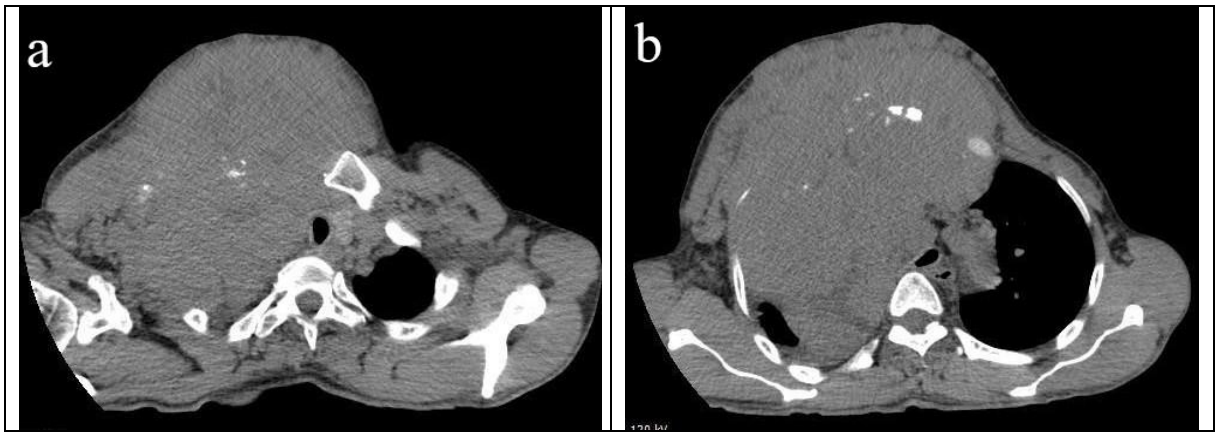

Figure 2: Axial cervico-thoracic CT-scan showing a partial calcified right thyroïd mass pluging to the mediastinum (a et b), with parietal extension, and costal lytic bones (c).

Tumor biopsy revealed a histological pattern of follicular variant papillary carcinoma (Figure 3).

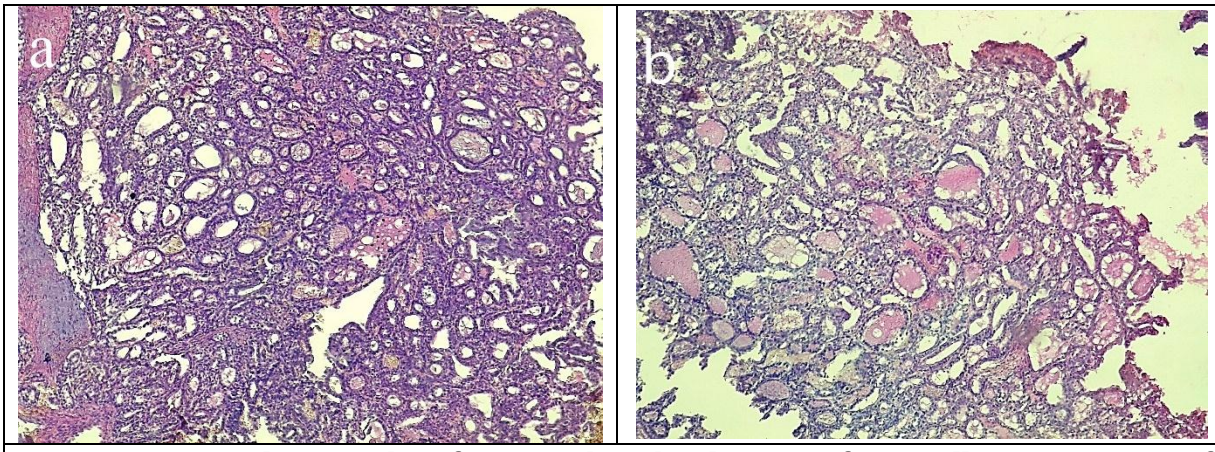

Figure 3: Microphotography of a secondary localization of a papillary carcinoma of thyroid vesicular architecture origin (a,b). Staining: Hematein eosin. X40 magnification Source: Anatomy and pathological cytology Departement of SALFA

A second surgery was not retained in multidisciplinary consultation, referring the patient for a nuclear medicine therapy, but unfortunately, the patient has never had treatment and was lost to follow-up.

DISCUSSION

Differentiated thyroid cancers have a good prognosis with a cure rate of 80% when surgery is combined with radiation therapy. However, locoregional recurrences have been observed, enhancing tumour invasion and distant metastases.[2] Recurrences can be caused either by incomplete excision or by insufficient lymph node excision.

After treatment, 5 to 30% of patients diagnosed with well-differentiated thyroid cancer will have locoregional recurrences. These recurrences occur within the first 10 years of follow-up.[3]

Non-regional lymph node involvement is considered as distant metastasis according to UICC (International Union Against Cancer) except axillary and mediastinal lymph nodes Their involvement is considered as an extension by contiguity from the primary lesion and then classified as regional, otherwise N1b according to the TNM classification.[4]

Metastatic axillary lesions and mediastinal lymph node involvement have been frequently reported.[5]

Axillary lesions are suggestive of advanced stages of papillary thyroid carcinoma.[6]

Recurrences of differentiated thyroid carcinomas are seen in 20%, of which 5 to 15% are cervical recurrences. Locoregional cervical recurrences are mainly lymphatic and rarely on the thyroid location.[7] Local and regional recurrences will promote metastases.[8]

Metastases of differentiated thyroid carcinomas are about 50% in follicular carcinomas and 10% in papillary carcinomas. To our knowledge, no case of cervico-mediastinal recurrence with thoracic parietal invasion has ever been reported. Follicular carcinoma is known to be more aggressive than papillary carcinoma.[9]

The pattern of follicular variant papillary carcinoma contributes to the development of this huge cervico-mediastinal mass, which is evidence of a slow and progressive evolution of the lesions observed. This latency also explains the development of collateral circulation by invasion of the superior vena cava. The lymph node tumour mass with invasion of the anterior chest wall considered this lesion to T4N1b and the age over 45 years allowed us to class the lesion as stage IV.

The prognosis of patient at the locoregional stage recurrence and during distant metastases is conditioned by three parameters: tumor size, histological pattern and age. Age over 45, and male gender are listed as poor prognostic factors.[10] Mediastinal invasion with involvement of the inferior vena cava as well as chest wall invasion are not recommended for the surgical treatment, and the age of 60 years and the male gender make unfavourable the prognosis.

CONCLUSION

Thyroid abnormalities need a histological examination. It's essential to evaluate the prognosis of the disease. Even under treatment, long-term clinical, biological and imaging monitoring are essential to detect recurrences and distant metastases in order to readapt the treatment. Recurrences of thyroid carcinomas are usually cervical and mediastinal. Histological pattern, age and size lesion, as well as CT and nuclear imaging data are helpful to assess patient prognosis and survival.

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