

# DIFFERENTIATED THYROID CANCER PRESENTING AS CHYLOTHORAX

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## INTRODUCTION

Initial presentation of thyroid carcinoma can range from a solitary thyroid nodule or cervical lymphadenopathy to symptoms related to local compression.

Presentation as chylothorax due to compression of thoracic duct is exceptional.

The aim of this case report is to describe an extremely rare case of follicular thyroid cancer presenting as chylothorax with special attention to therapeutic aspects.

## CLINICAL PRESENTATION

A 78-years-old woman was referred to Internal Medicine Unit for evaluation of pleural effusion.

She had a several months history of cough and dyspnea on exertion.

Medical history was significant for hypertension and atrial fibrillation.

The patient was tachypneic and the lung exam revealed markedly decreased breath sounds in the right hemithorax. Head and face examination were unremarkable.

A computed tomography (CT) scan of the chest and neck showed a massive right pleural effusion and a markedly enlargement of right lobe of the thyroid gland with intrathoracic extension (figures 1 and 2).

Thoracentesis removed pleural fluid with the typical milky appearance of chylothorax.

The diagnosis of chylothorax was confirmed by measuring the triglyceride levels of pleural fluid (469 mg/dL) (Table 1).

A chest tube was placed in the right pleural space and parenteral nutrition was started.

Fine-needle aspiration of thyroid mass was negative for malignancy.

A transcervical approach to removal her substernal goiter was performed (figure 3).

A sternotomy was not required for removal and no thoracic duct repair or ligation was necessary.

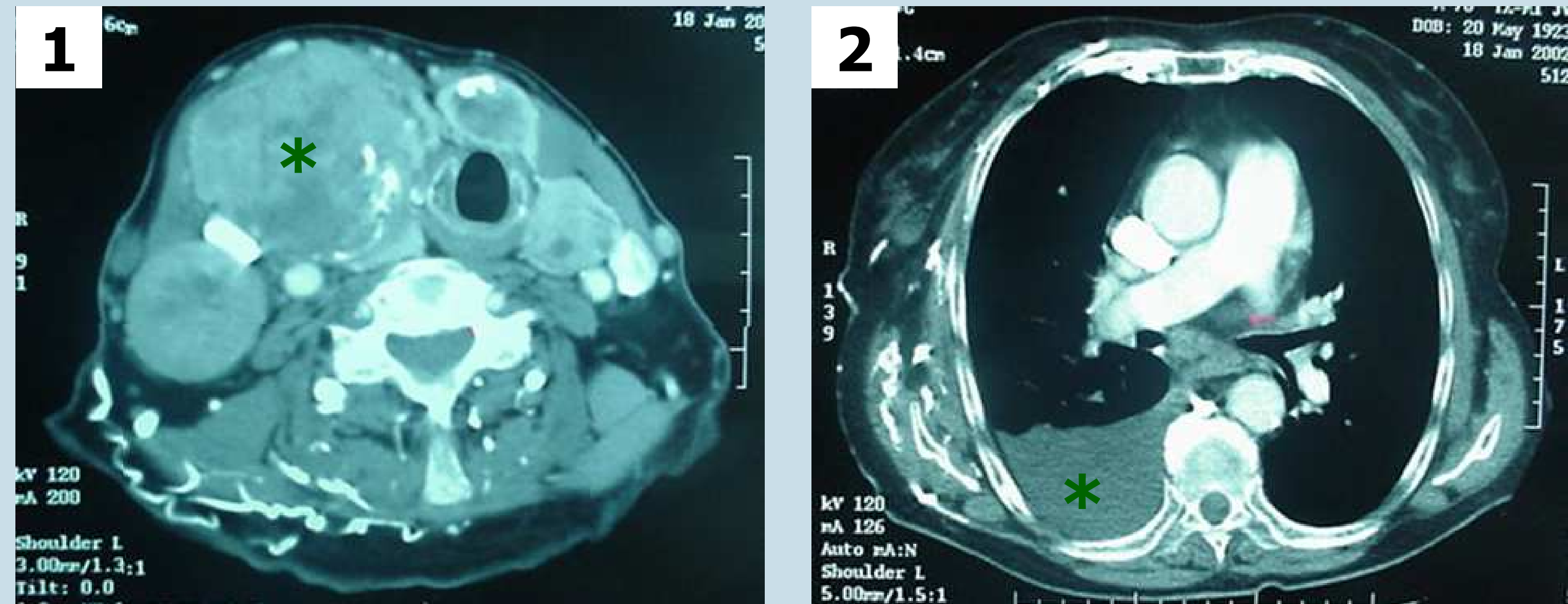
Biopsy of the thyroid mass was positive for follicular carcinoma without evidence of metastases (figure 4).

Chest tube was removed and oral nutrition was reinitiated. The patient received radioiodine ablation and postoperative follow-up showed no residual chylothorax.

## CONCLUSIONS

- It is rarely described the association of chylous pleural effusion and thyroid cancer. To the best of our knowledge this is the first case of follicular carcinoma presenting as chylothorax.

- The current case also highlights the potential surgical treatment of chylothorax associated to substernal goiter through transcervical approach without need of thoracic duct repair.



**Figure 1.**

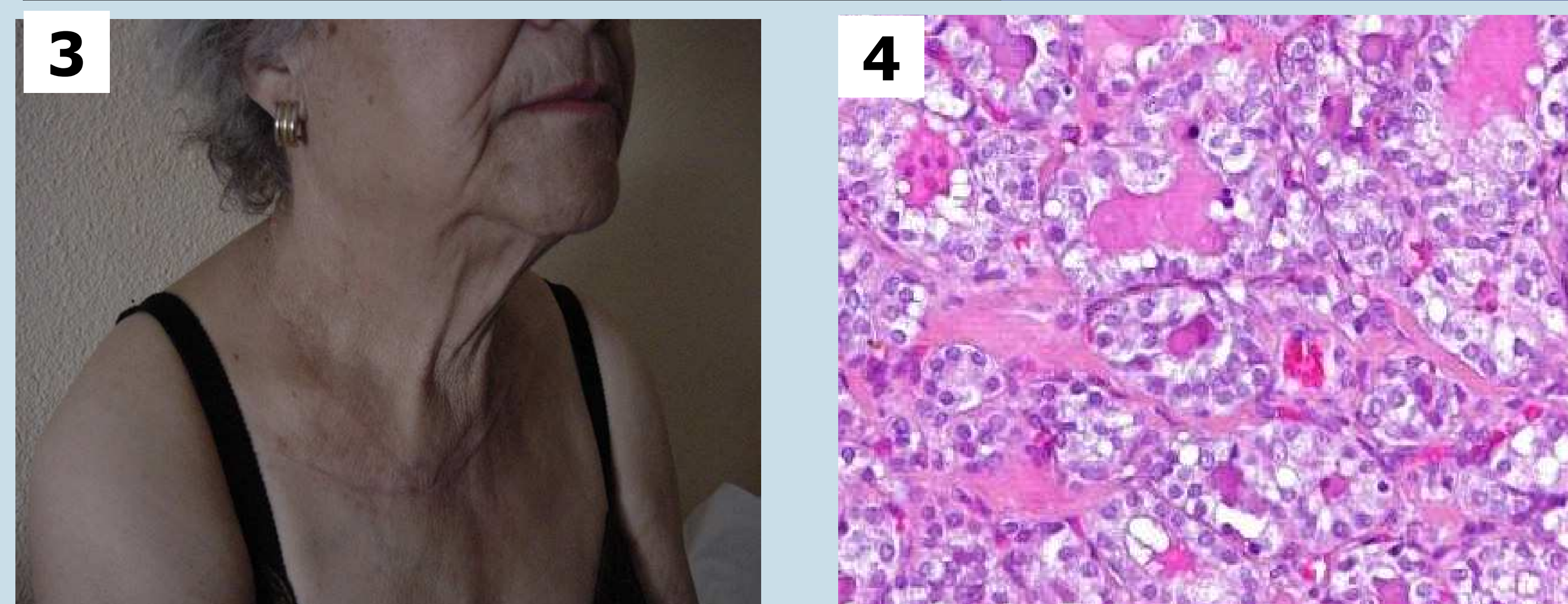
Preoperative CT scan image of patient's neck showing a large, multilobular and calcified right thyroid mass with mediastinal extension and left displacement of the trachea (asterisk).

**Figure 2.**

Preoperative CT scan image of patient's chest showing a right-sided pleural effusion with partial collapse of the right lung (asterisk).

**Table 1: Biochemical analysis of pleural fluid**

pH	7,41
Leukocytes/mm <sup>3</sup>	2000
Neutrophils (%)	45
Lymphocytes (%)	55
Glucose (mg/dL)	126
Proteins (g/dL)	3,8
Lactate dehydrogenase (U/L)	169
Cholesterol (mg/dL)	49
Triglycerides (mg/dL)	469



**Figure 3.**

Postoperative photo of the patient after transcervical thyroidectomy.

**Figure 4.**

Biopsy of the mediastinal mass: follicular thyroid cancer.

## REFERENCES

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