

## NON-CYSTIC FIBROSIS BRONCHIECTASIS AND CALCIFICATIONS: ARE IGRAS OF ANY USE?

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### Introduction

Tuberculosis (TB) is known as a leading cause of non-CF bronchiectasis in high burden TB settings. However, the finding of pulmonary sequelae suggestive for past-TB is not always associated with a positive history for tuberculosis episode. QFT-TB GOLD could reflect the past history of pulmonary TB.

### Aim

To evaluate the prevalence of IGRAs positive test among patients with non-CF bronchiectasis patients, calcifications and no history of TB treatment.

### Material and methods

34 enrolled patients (mean age 56.6 years, 53% females) with non-CF bronchiectasis and calcifications were tested with QFT-TB Gold (results were reported as positive, negative, indeterminate).

High-resolution computed tomography images (HRCT) were analyzed to appreciate the type and extent of bronchiectasis and the presence of calcifications in chest and abdominal organs.

### Results

Severe bronchiectasis was identified in 20 patients with a BSI score  $\geq 9$  points, 68% (23 cases) demonstrating cystic bronchiectasis at least in one lobe. The modified Reiff score was  $7.9 \pm 4.1$  (1-14), and the more detailed Bhalla score was  $12.8 \pm 4$  (5-19). The most frequent localization of the calcifications was in the lung parenchyma 27 cases (76%) and bronchial wall 25 cases (74%), followed by calcification of lymph nodes 50% and pleural calcifications 32%. Eight patients (24%) had positive QFT-TB Gold test result at study enrollment. After a one year follow up, only one of the QFT positive patients developed active smear positive pulmonary TB (by the 6th month).

### Conclusions

Presence of calcification on HRCT in patients with non-CF bronchiectasis has a poor correlation with positive latent tuberculosis infection status.

Key words: bronchiectasis, calcifications, IGRA, tuberculosis.

Figure 1. QuantiFERON®-TB Test Method

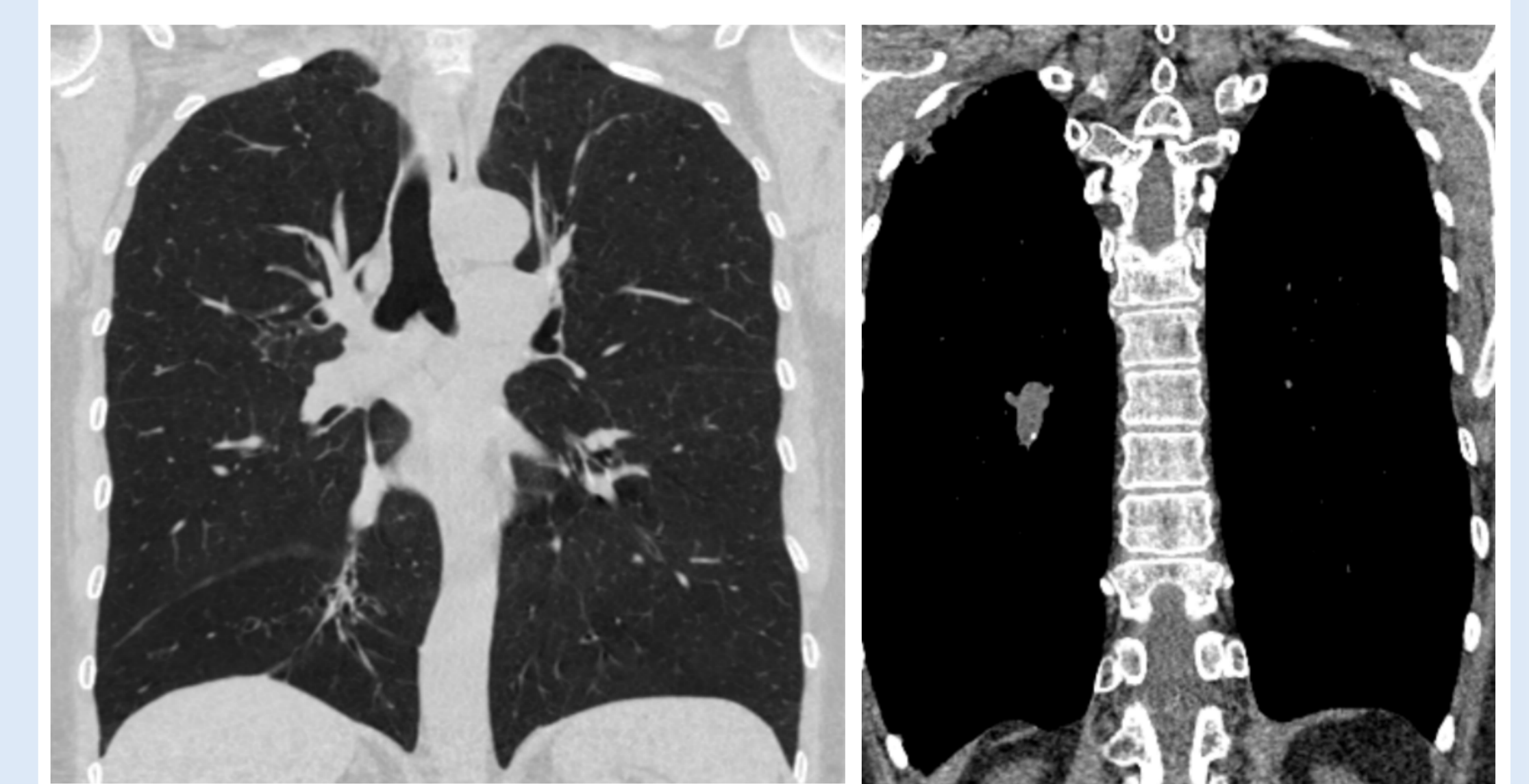
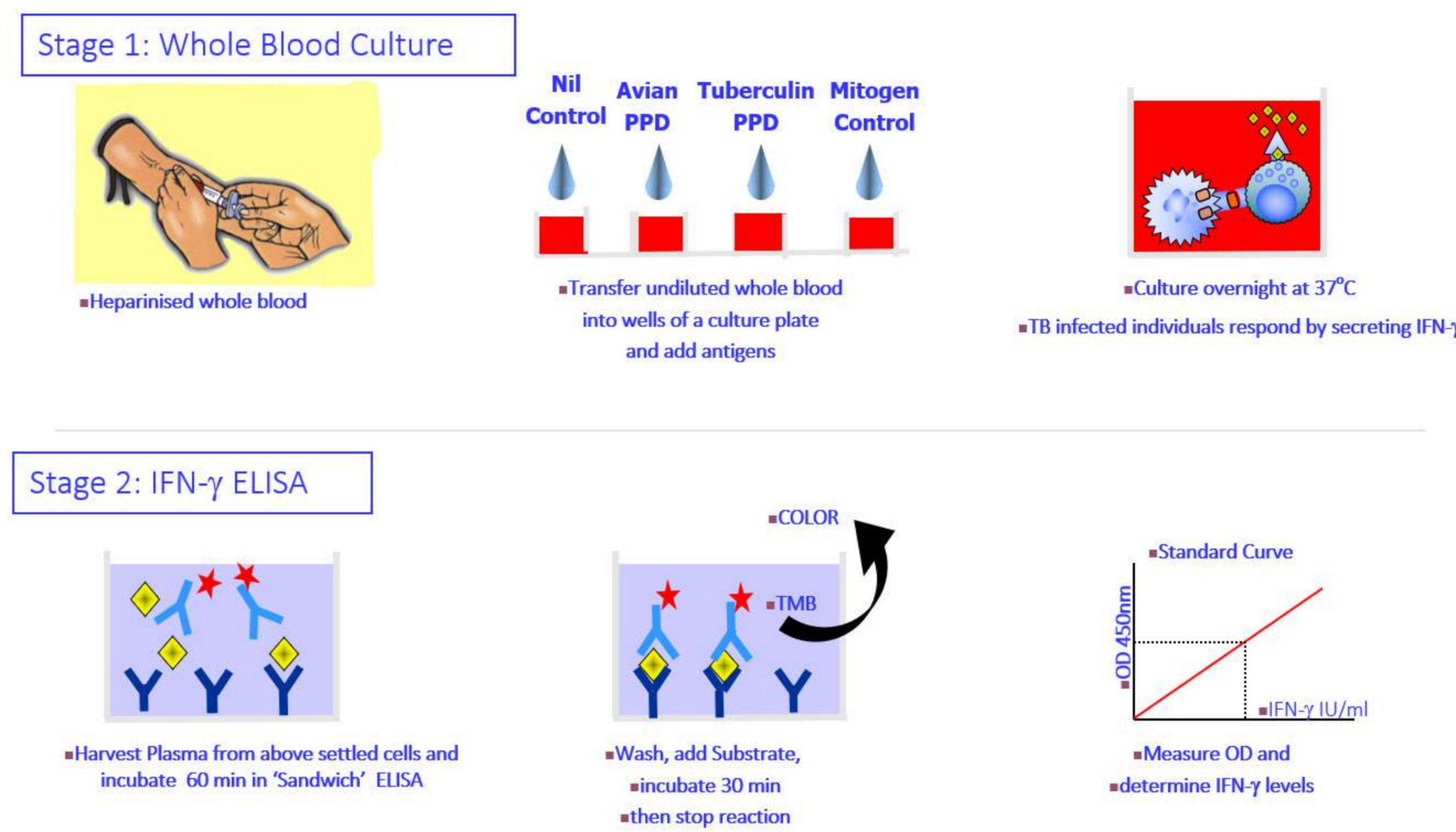


Figure 2.

Chest HRCT of a 55 years old female demonstrating tubular bronchiectasis in the left lower lobe and small calcifications, IGRA positive.

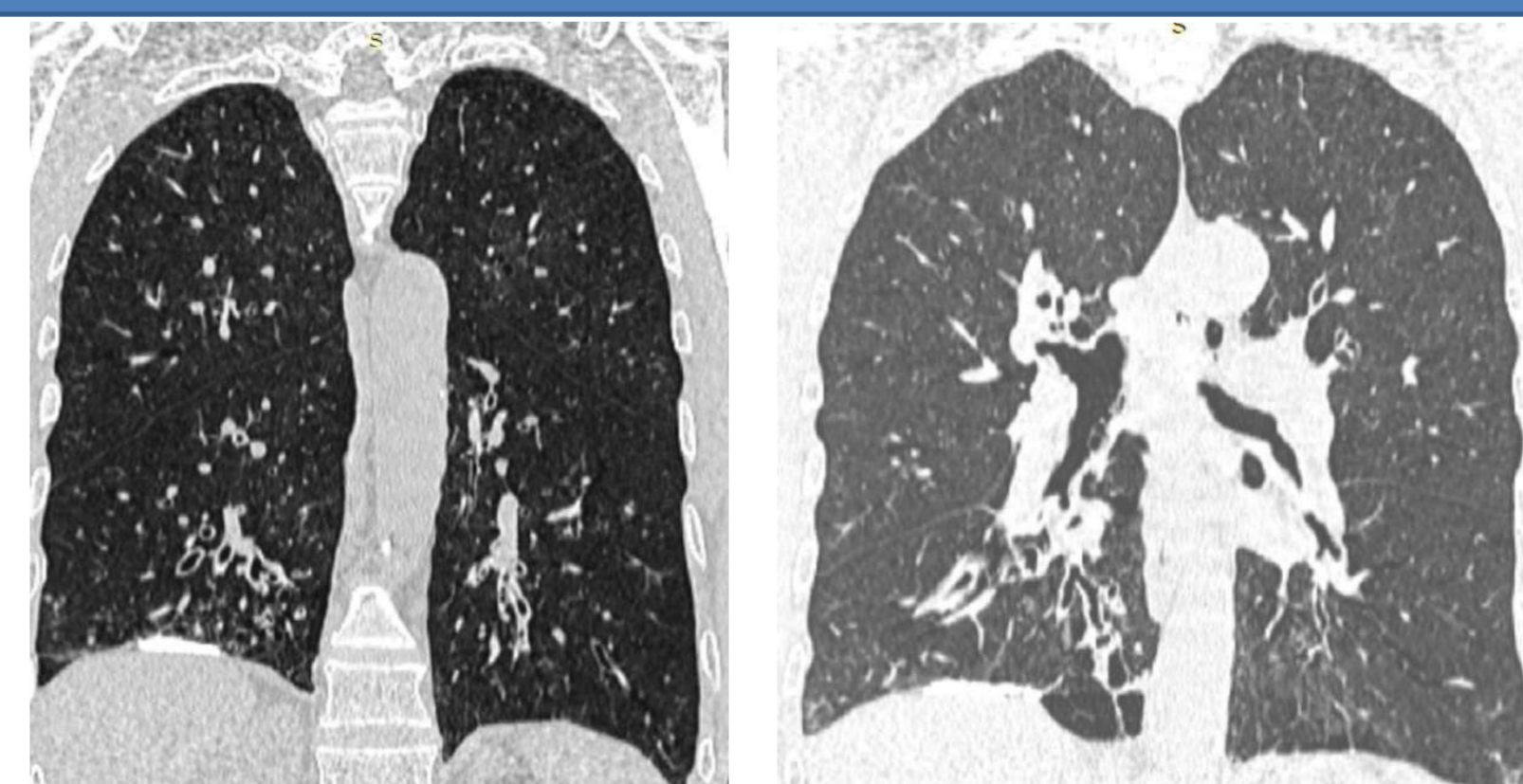
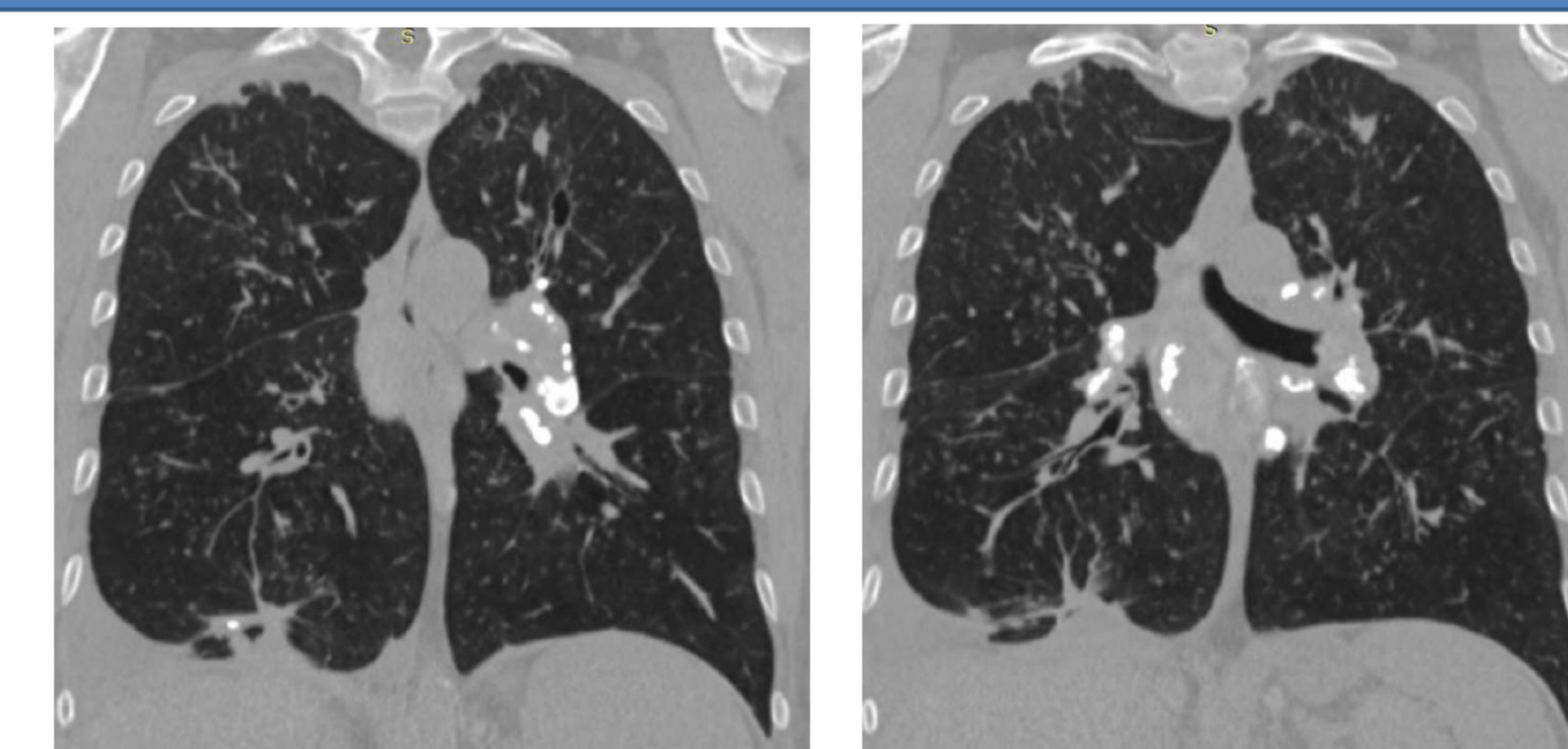
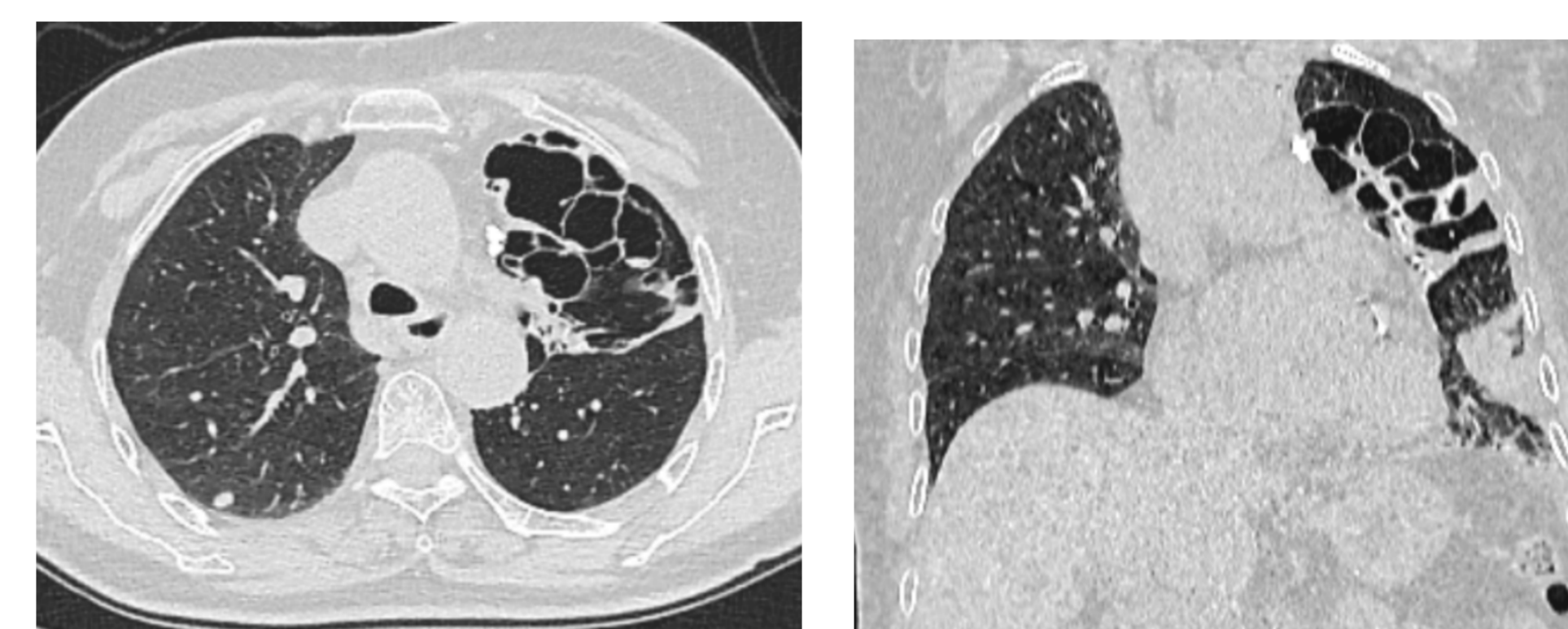


Figure 3.

Chest HRCT of three patients with bronchiectasis and calcifications of the lymph nodes, bronchial walls and pleura, QFT-TB Gold test negative.

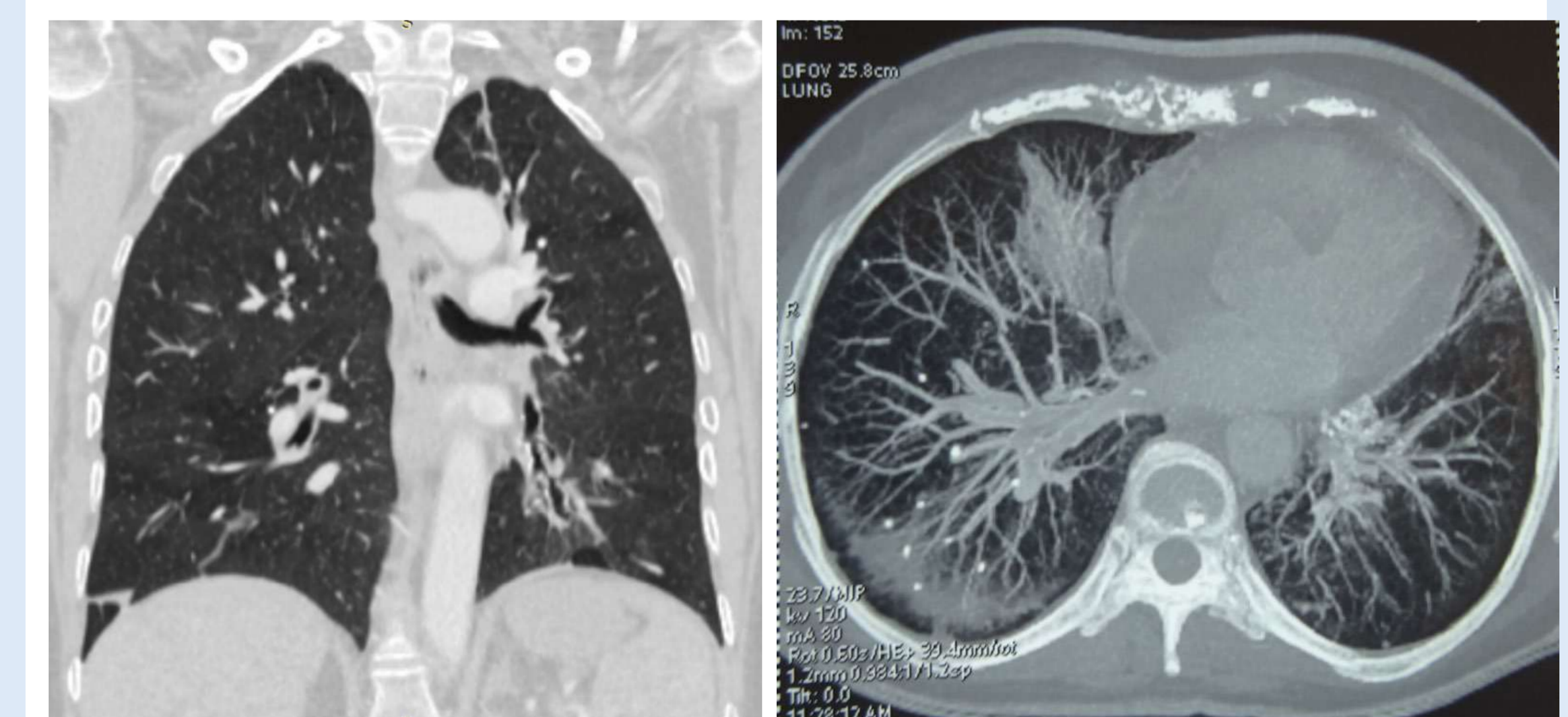
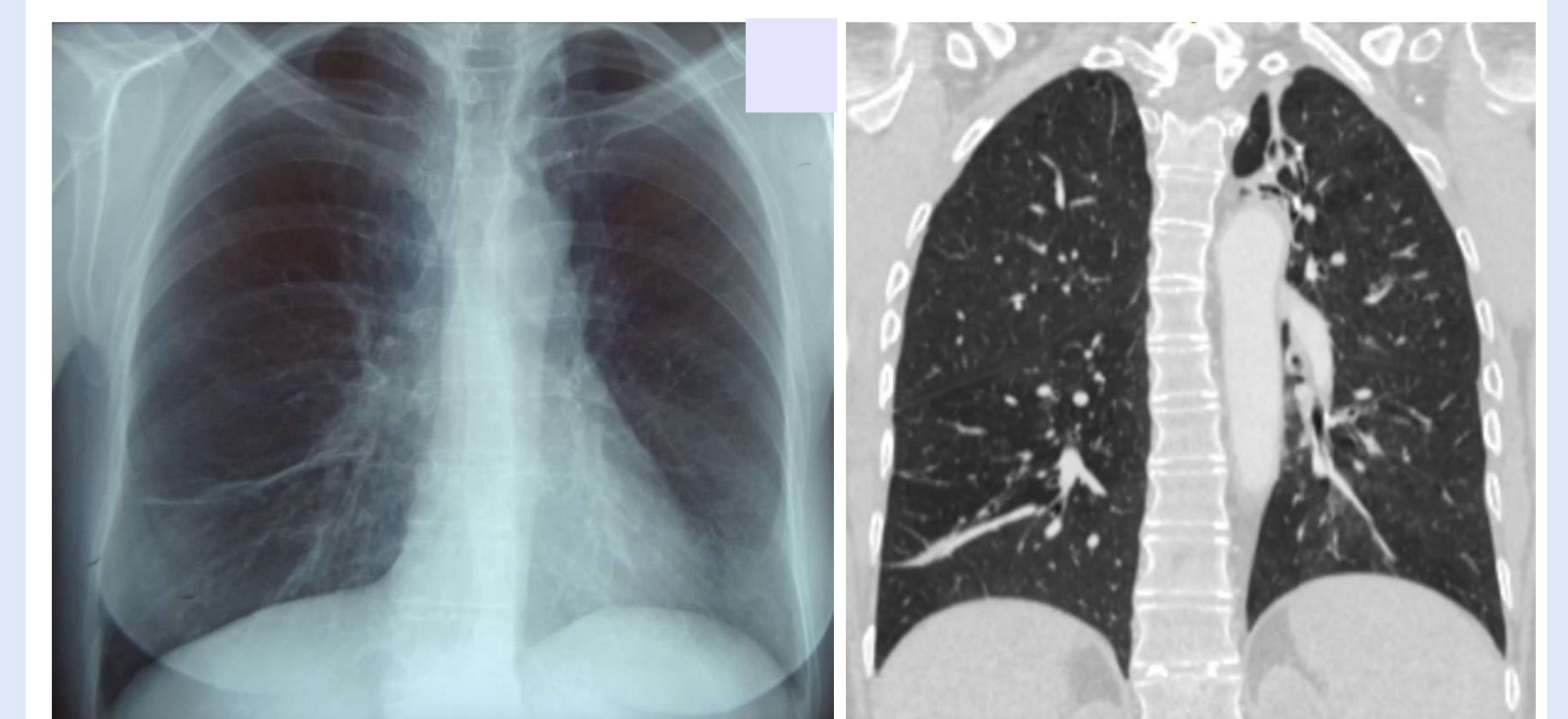


Figure 4.

Chest X-Ray and HRCT of a 55 years old female, QFT-TB Gold test positive demonstrating diffuse parenchymal and bronchial wall calcifications. She developed active smear positive pulmonary TB (by the 6th month).