

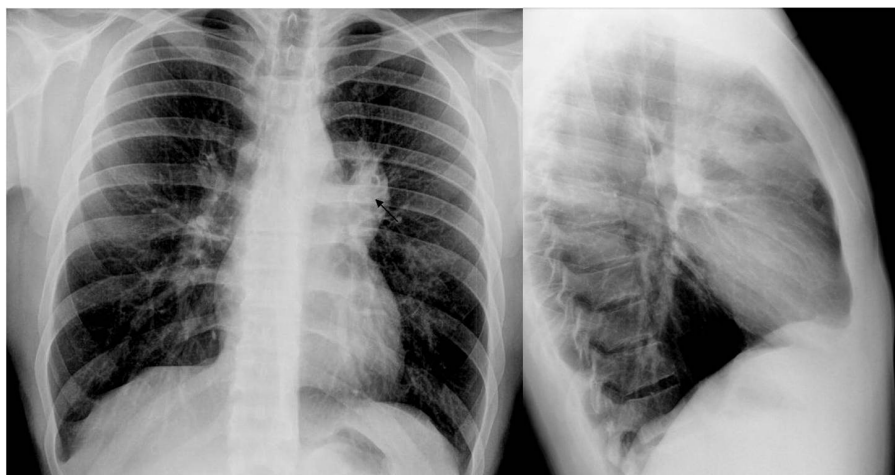
## An unexpected finding in a patient with cough

Victoria Mayoral Campos, Claudia Bonnet Carrón, Beatriz Carro Alonso, Cristina Puebla Macarrón, José Luis Benito Arévalo

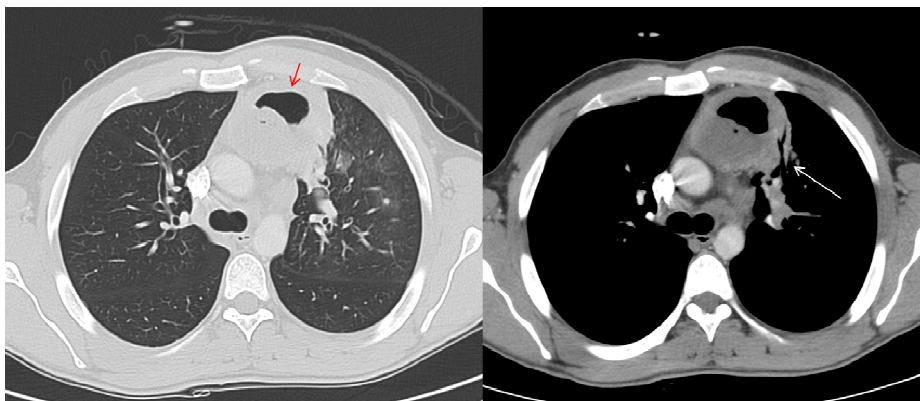
**Clinical presentation**—A 28-year-old male with a 5-month history of productive cough and weight lost. He was smoker of 10–15 cigarettes a day. There was no fever or haemoptysis. On examination, the patient had a normal respiratory rate, normal oxygen saturation, and temperature and auscultation of heart, lungs, and abdomen was normal. Morphological, biochemical and hormonal blood parameters did not show any significant abnormality.

A chest radiograph was obtained at presentation (Figure 1). A thoracic computed-tomography (CT) scan (Figure 2) was also obtained. *What is the diagnosis?*

**Figure 1. Chest radiograph**



**Figure 2. Images from a CT scan**



**Answer**—The Chest radiograph demonstrates a well circumscribed mass, with smooth contour and with central cavitation, which has the radiological characteristics of an *anterior mediastinal mass*.

The CT scan confirmed the radiographic findings of anterior mediastinal mass with air collection inside (short arrow), adenopathies and the clinical suspicion of mediastinal lymphoma. The mass extends to the adjacent lung parenchyma and produce the broncogram sign (long arrow).

**Discussion**—Anterior mediastinal masses can be identified when the hilum overlay sign is present and the posterior mediastinal lines are preserved.<sup>1</sup> The hilum overlay sign is present when the normal hilar structures project through a mass, such that the mass can be understood as being either anterior or posterior to the hilum (arrow Figure 1).

The four principal anterior mediastinal masses are thymoma, lymphoma, germ cell tumours or retrosternal goitre. The thyroid gland is intimately related to the trachea so enlargement may disrupt the middle and posterior mediastinal lines.

Primary mediastinal lymphoma is a rare entity comprising only 10% of lymphomas in the mediastinum.<sup>2</sup> It usually has a bimodal distribution of incidence, peaking in young adulthood and again after age 50 years. It can have the same appearance as any other type of anterior mediastinal mass on plain films.<sup>3</sup> It can have central cavitation but this finding is extremely rare. The mass can extend to the adjacent lung parenchyma.

The mediastinoscopy with biopsy confirmed the diagnosis of Hodgkin's lymphoma, mixed cellularity type, stage IVB, because there was lung extension.

The patient was treated with six cycles of ABVD, and posterior radiotherapy. There was improvement in symptoms and significant resolution of the mediastinal mass on follow-up CT scan.

**Author information:** Victoria Mayoral Campos, Claudia Bonnet Carrón, Beatriz Carro Alonso, Cristina Puebla Macarrón, José Luis Benito Arévalo, Department of Radiology, Hospital Clínico Universitario Lozano Blesa, Zaragoza, Spain

**Correspondence:** Dra. Victoria Mayoral Campos, Department of Radiology, Hospital Clínico Universitario Lozano Blesa, Avenida San Juan Bosco 15, 50009, Zaragoza, Spain. Email: [vickymayoral@gmail.com](mailto:vickymayoral@gmail.com)

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