

## Pleural Lipoma

Khadija LAASRI\*, Salma EL HOUSS, Ittimade NASSAR, Nabil MOATTASIM BILLAH

Department of Radiology, Ibn Sina University Hospital, Mohammed V University, Rabat, Morocco

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\***Corresponding author:** Khadija LAASRI. Department of Radiology, Ibn Sina University Hospital, Mohammed V University, Rabat, Morocco

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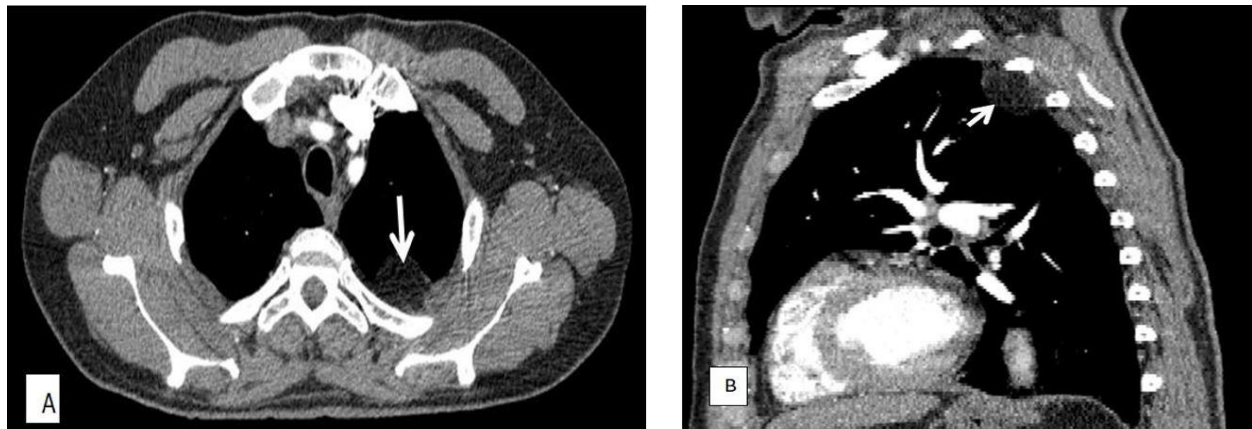
### ABSTRACT

#### CLINICAL HISTORY

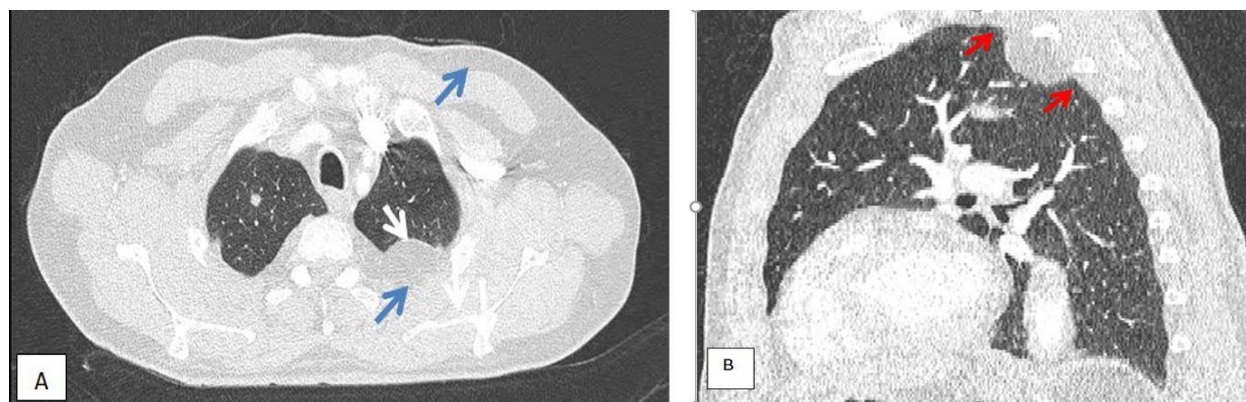
A 50-year-old man was admitted for management of a rectal adenocarcinoma. The patient underwent a thoracic-abdominal-pelvic CT scan as part of the extension workup.

**Keywords:** Peural mass; Lipoma; CT scan

#### IMAGING FINDINGS



**Figure 1:** Contrast enhanced computed tomographic scan of chest in mediastinal soft tissue window-level setting, in axial section(A), and sagittal reformatted scan (B), showing a left pleural mass (white arrow), oval, well limited, fatty density (-75 HU), not enhanced after injection of contrast medium.



**Figure 2:** computed tomographic scan of chest in lung window-level setting, in axial section(A), and sagittal reformatted scan (B), showing the left pleural mass (white arrow), oval, well limited, of the same density as the subcutaneous fat (blue arrow), connecting at an obtuse angle with the chest wall (red arrow), suggesting the pleural origin

**FINAL DIAGNOSIS:** Pleural lipoma

## DISCUSSION

Pleural lipomas are rare, encapsulated, slow-growing, benign fatty tumors that primarily affect adults. They originate from the submesothelial connective tissue and may extend into the subpleural, pleural or extrapleural space.<sup>[1, 2]</sup>

Pleural lipomas are usually asymptomatic as in our patient's case, but can cause compressive symptoms such as non-productive cough, chest pain and dyspnea if they reach a sufficient size.<sup>[1,2]</sup>

On a chest radiograph, they usually present as a peripheral mass connecting to the wall with obtuse angles.<sup>[2]</sup> The masses are usually 2-4 cm in size, but large lipomas have also been reported.<sup>[2]</sup> The diagnosis is made by CT or MRI, which show a homogeneous encapsulated fatty mass (-50 to -150 Hounsfield Unit on CT, and on MRI hyper-signal in T1 and hypo-signal in T2 or fat saturation sequences), often containing thin septa (<2 mm) that may enhance after injection of contrast medium.<sup>[3]</sup>

The differential diagnosis is mainly with well-differentiated liposarcoma, which is suggested in front of a large lesion, containing thick enhanced septa after contrast injection, the presence of intralesional nodular tissue and an amount of fat component <75% of the mass.<sup>[2,3]</sup> However, it should be kept in mind that a lipoma may also show nonfat areas due to fat necrosis, calcification, fibrosis, inflammation and associated myxoid changes.<sup>[2]</sup> In case of localization in the diaphragmatic pleura, the differential diagnosis is diaphragmatic hernia or focal ventralization, but sagittal and coronal reconstructions are useful to distinguish them.<sup>[2]</sup>

Management of pleural lipoma depends on a variety of factors, including lesion size, location, associated symptoms, and patient age. Because these lesions are generally slow-growing and have virtually no potential for malignant

transformation to liposarcoma, periodic surveillance is an appropriate alternative to surgery, especially for patients with small asymptomatic lesions. Surgical resection is the treatment of choice for symptomatic lesions.<sup>[2]</sup>

### **CONFLICT OF INTERESTS**

The authors declare that there is no conflict of interests.

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