Case report: Lung lipoma

Ashish Atre, Swati Rajapure, John Joseph
Department of Radiodiagnosis, Grant Medical Foundation, Ruby Hall Clinic, Pune, India

Correspondence: Dr. Swati Rajapure, Department of Radiodiagnosis, Grant Medical Foundation, Ruby Hall Clinic, 40, Sassoon Road, Pune - 411 001, India. E-mail: swati.rajapure@rediffmail.com

Key words: Lung lipoma..

Case Report

A 66-year-old man suffering from an inguinal hernia had a routine, preoperative chest x-ray examination, which showed a well-defined, rounded pulmonary lesion in the left upper lobe, measuring approximately 6.0 cm in diameter [Figure 1].

He had no symptoms. There was no relevant past medical history and clinical examination showed no abnormalities in the chest.

He underwent a CT scan of the chest, which demonstrated a well-defined, rounded, left upper lobe lesion, measuring 6.6 × 6.7 cm in the maximum transverse dimension [Figure 2]. The lesion had smooth outlines and was in close relation to the left apical segmental bronchus, minimally displacing it. It showed CT attenuation values of −100 to −110 HU, indicating the presence of fat [Figure 3]. No other solid component, calcification, or any features of malignancy were seen in this lesion. Linear enhancing structures, representing either septae or vessels, were seen traversing it. There was no additional enhancement [Figure 4].

![Figure 1: Chest radiograph, PA view, shows a well-defined, rounded pulmonary lesion in the left upper lobe (arrow)](image1)

![Figure 2: Plain axial CT scan shows a well-defined, rounded left upper lobe lesion (arrow) measuring 6.6 × 6.7 cm](image2)

![Figure 3: Plain axial CT scan shows a well-defined, rounded left upper lobe lesion (arrow) with CT attenuation values of −100 to −110 HU, indicating the presence of fat](image3)
The bronchus is less than 1 mm in diameter,[1,4–7] which accounts for the rarity of peripheral lipomas. Over a 90-year period, as few as 8 cases of peripheral intrapulmonary lipomas have been reported in the medical literature.[3,7–12] The first case was reported in 1911[8] and the most recent one in 2004.[13]

Intrapulmonary lipomas are divided into endobronchial and peripheral parenchymal lipomas. Endobronchial lipomas are more common, accounting for 80% of the cases,[9,10] and are frequently found in the walls of the proximal lobar or segmental bronchi. The fatty tissue decreases with progressive bronchial branching and disappears when the bronchus is less than 1 mm in diameter,[1,4–7] which accounts for the rarity of peripheral lipomas. Over a 90-year period, as few as 8 cases of peripheral intrapulmonary lipomas have been featured in the medical literature.[3,7–12] The previous seven reported patients underwent thoracotomy to establish the diagnosis, as malignancy could not be confidently excluded. In one patient, CT scan was diagnostic and a review of the previous images demonstrated a lesion that had persisted unchanged for 12 years, making malignancy unlikely. In our case, the patient was asymptomatic. The tumor was an incidental finding and showed CT attenuation values of –100 to –110 HU, indicating the presence of fat, with no features of malignancy. As a result, no intervention was performed.

The differential diagnosis of fat-containing peripheral lung masses includes fibrolipomatous hamartoma[14] and liposarcoma.[15,16] These tumors, however, contain other soft tissue elements and calcium, in addition to fat.[17]

References


Source of Support: Nil, Conflict of Interest: None declared.