

Six months after surgery, the patient's serum calcium and PTHi had returned to normal.

## Discussion

Mediastinal ectopic parathyroid adenoma causes hyperparathyroidism in approximately 20% of cases. When the thymus descends into the chest in the 5th week of embryonic development, it is accompanied by the lower parathyroid glands, as they take up their normal position. Occasionally, however, they move to the chest, along with the thymus.<sup>1</sup>

Most patients with hyperparathyroidism are asymptomatic, but any symptoms that do appear are generally caused by hypercalcemia, and include nausea, vomiting, excessive thirst, constipation, polyuria, lethargy, and cardiac anomalies. Kidney stones, bone resorption and pathologic fractures may also occur. Severity of symptoms correlates with the size of the hyperfunctioning adenoma.<sup>2</sup> When PHPT is suspected, preoperative localization of the tumor by imaging studies is essential for planning the surgical approach and allowing the surgeon to select the most appropriate technique. Ectopic parathyroid adenomas of less than 10 mm in diameter are best detected with <sup>99m</sup>Tc-MIBI scintigraphy.<sup>3</sup> Cervical ultrasound, CT and magnetic resonance imaging are used to determine the exact anatomical site of the mass.

Conventional approaches for a parathyroid adenoma located deep in the mediastinum are median sternotomy, manubriotomy or thoracotomy.<sup>4</sup> Thanks to recent advances, however, video-assisted thoracoscopy is now more widely used for the resection of mediastinal ectopic parathyroid adenomas.

Large parathyroid adenomas are exceptional, and masses weighing more than 70 g have occasionally been reported.<sup>5</sup> In our case, the adenoma measured 5.5 × 4 × 4 cm, and weighed 95 g, making it one of the largest masses described in the literature, the largest being 145 g.

## Conflict of Interest

The authors state that they had no conflict of interests.

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Fayçal El Oueriachi,\* Adil Arsalane, El Hassane Kabiri

*Departamento de Cirugía Torácica, Mohamed V Military Teaching Hospital, Mohamed V Souissi University, Rabat, Morocco*

\* Corresponding author.

E-mail address: faycaldr@hotmail.com (F. El Oueriachi).

## Intraparenchymal Pulmonary Lipoma Clinically Mimicking Malignant Neoplasm<sup>☆</sup>



### *Lipoma pulmonar intraparenquimatoso con comportamiento clínico de neoplasia maligna*

To the Editor:

Lipomas are the most common benign soft tissue tumor found in humans, and occur in approximately 1% of the population. They are generally subcutaneous, and appear only rarely in the viscera.<sup>1</sup> Pulmonary lipomas are uncommon, most being endobronchial lesions accounting for 0.15%–0.5% of lung tumors. Pulmonary lipomas within the peripheral parenchyma are exceedingly rare.<sup>2,3</sup> We report such a case.

A 58-year-old man presented with pain in the left hemithorax radiating to the left shoulder and arm. Chest X-ray revealed an undefined lesion in the upper left lobe of the lung. Multislice computed tomography showed a rounded peripheral intraparenchymal pulmonary nodule measuring 53×54 mm, located in the periphery of the upper left lobe lingula. The lesion was in contact with the diaphragm, the pericardium and the parietal pleura (Fig. 1).

Thoracotomy was performed and intraoperative inspection revealed a tumor in the lingula, adhered to the diaphragm and the pericardium. No hilar or mediastinal lymphadenopathies were

found. Unilateral left upper lobectomy was performed and the sample was sent for pathology analysis.

The gross description was a soft, pale brown, round tumor in the lingula, with defined borders, measuring 35×25×25 mm.



**Fig. 1.** Multislice computed tomography showing round, homogeneous, intraparenchymal pulmonary nodule, located in the periphery of the left pulmonary lingula, in contact with the pericardium and the parietal pleura.

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Histological analysis reported a tumor consisting of mature adipose cells with interspersed areas of thin collagen stroma. The tumor nucleus was necrotic. It was separated by a fibrous capsule from the rest of the lung parenchyma and the visceral pleura on one side and the adipose and muscle tissue (considered part of the pericardium and the diaphragm) on the other. The diagnosis, according to appearance on histology, was lipoma. The patient remains well, 4 months after surgery.

Intraparenchymal pulmonary lipomas do not appear to favor any lung lobe or side, and appear in both men and women aged from 26 to 81 years of age. Tumors previously described range in size from 1.3 cm to 7 cm in diameter.<sup>2–4</sup>

The clinical course of these tumors is benign and they are generally asymptomatic. In rare cases such as ours, however, they present with paresthesia of the arm, mild dyspnea and lung dysfunction.<sup>3,4</sup>

Peripheral pulmonary lipomas are indistinguishable from malignant tumors on chest X-ray. Computed tomography is thought to assist diagnosis, although it remains difficult for radiologists to determine the biological nature of the lesion.<sup>3</sup>

Treatment of solitary pulmonary nodules (including pulmonary lipomas) remains a topic for debate, because in none of the reported cases could malignancy be definitively ruled out. In general, they are surgically resected, the most common procedure being lobectomy.<sup>5</sup>

In our case, multislice computed tomography and intraoperative inspection of the lung showed an intraparenchymal pulmonary lesion in contact with the diaphragm, the pericardium and the parietal pleura, clinically mimicking a malignant tumor, so lobectomy was selected as treatment of choice. Despite their rarity, intraparenchymal pulmonary lipomas should be considered in the differential diagnosis of pulmonary nodules located in the lung periphery, for careful planning and adaptation of the surgical intervention.

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Jasna Bacalja,<sup>a,\*</sup> Igor Nikolić,<sup>b</sup> Luka Brčić<sup>c,d</sup>

<sup>a</sup> Clinical Department of Pathology and Cytology, Dubrava University Hospital, Zagreb, Croatia

<sup>b</sup> Clinical Department of Surgery, Dubrava University Hospital, Zagreb, Croatia

<sup>c</sup> Institute of Pathology, School of Medicine, University of Zagreb, Zagreb, Croatia

<sup>d</sup> Clinical Department of Pathology and Cytology, University Hospital Centre Zagreb, Zagreb, Croatia

\* Corresponding author.

E-mail address: [jasnabacalja@yahoo.com](mailto:jasnabacalja@yahoo.com) (J. Bacalja).

## Migratory Pulmonary Nodules in a Patient With Ulcerative Colitis<sup>☆</sup>



### Nódulos pulmonares migratorios en paciente con colitis ulcerosa

To the Editor:

Ulcerative colitis (UC) is an intestinal inflammatory disease occasionally associated with extraintestinal complications. We report here an atypical case of pulmonary manifestations of UC.

A 70-year-old man with a history of UC, stable in the last 5 years, receiving azathioprine, presented with a clinical picture of hemoptysis. Chest computed tomography (CT) was performed, revealing an 18-mm cavitated nodule in the right lower lobe. One month later, PET-CT was performed, showing nodule growth (19.5 mm) and hypermetabolism (SUV 5.77). Bronchoscopy was normal and lung function testing found mild, non-obstructive changes (FEV1/FVC 77, FEV1 [L] 2.22 [68%], FVC [L] 2.89 [65%]). Microbiology testing of endoscopy specimens, including auramine staining and *Mycobacterium tuberculosis* complex DNA detection, were negative. Four weeks later, the patient had another episode of hemoptysis and respiratory failure (pO<sub>2</sub> 52 mmHg). Repeat chest CT showed a 7-cm mass in the right upper lobe (RUL) (Fig. 1A). Pulmonary thromboembolism was ruled out by the contrast study. Bronchoscopy was

repeated, and was normal again, and cytology and microbiology results remained negative (direct detection and bacterial, fungal and mycobacterial cultures). Pulmonary abscess was suspected, so treatment began with clindamycin with good clinical response. However, the 3-month follow-up chest CT showed that while the 7-mm RUL lesion had resolved, a new cavitated nodule had appeared in the RUL (Fig. 1B). To rule out the association with the patient's gastrointestinal disease, colonoscopy was performed, showing mild UC. The immunological examination (including antinuclear and anti-neutrophil cytoplasmic antibodies) was negative.

In an attempt to determine diagnosis, pulmonary biopsy by thoracotomy was performed. Pathology laboratory reports showed sterile aggregates of neutrophils with areas of necrosis and foci of organizing pneumonia, with no evidence of vascular infiltration. These findings were thought to be indicative of UC lung involvement. Treatment began with prednisone 30 mg every 12 h for 2 weeks, with complete resolution of radiological signs (Fig. 1C).

UC is an inflammatory disease that affects the mucosa of the colon. It manifests mainly as diarrhea, abdominal pain and rectal bleeding.<sup>1</sup> However, in 10%–30% of cases, it can be associated with extraintestinal manifestations, particularly in the joints, skin and eyes. Pulmonary manifestations of UC are rare, multiple and non-specific.<sup>2,3</sup> The most common symptoms are cough and wheezing.<sup>3</sup> Our patient presented hemoptysis and respiratory failure, unusual in the published cases.<sup>2–4</sup> Radiological findings also vary widely. The most common include bronchiectasis and ground-glass opacities.<sup>3</sup> In our case, migratory cavitated pulmonary nodules

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