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Case report

Unusual mode of presentation of intrathoracic bronchogenic cyst: A double location

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A B S T R A C T

A 63 year old woman presenting chronic back pain and neuralgia had abnormal shadow on chest radiograph. She has a history of pulmonary tuberculosis treated in 1977. The chest-CT scan showed a soft tissue mass in the lower lobe of the right lung and a cystic mass in the paravertebral region. The patient had right lower lobectomy and complete excision of a paraoesophageal cyst. Both masses were bronchogenic cysts at histology. The patient had an uneventful discharge the seventh postoperative day. After 4 years and 7 months of follow-up with CT-scann, the patient was free of symptoms with no evidence of recurrent disease.

1. Introduction

Bronchogenic cysts (BCs) are a congenital foregut duplication anomaly and represent about 18% of all mediastinal tumors. It can be found in the mediastinum or pulmonary parenchyma (15–23%) and rarely in extrathoracic locations [1–3]. In the mediastinum, Maier has classified the cyst into: right paratracheal, left paratracheal, subcarinal, above right mainstem bronchus, above left mainstem bronchus, right paraoesophageal, left paraoesophageal, intraparenchymal, and above aortic arch [4]. Bronchogenic cysts are usually asymptomatic and are discovered as an incidental finding. They may become symptomatic in case of compression when they increase in size or when they infect [1–3]. We report an exceptional case of double location of bronchogenic cyst (intrapulmonary and mediastinal) in a 63-year-old woman; the complete resection by thoracotomy gives good result.

2. Clinical case

A 63-year-old woman was admitted in our department for evaluation of chronic back pain and neuralgia. She had an abnormal shadow on the chest radiograph followed up since 1999. She has a history of arterial hypertension for 5 years treated by association of diuretics and inhibitor of the conversion enzyme. The patient had not had BCG vaccination. In 1977, she was treated for pulmonary tuberculosis, which was diagnosed for fever, cough, weight loss and night sweats. Chest radiograph showed opacity in the right lower lobe. Tuberculosis skin test was positive, but sputum smear and culture for tuberculosis were negative. She was treated using streptomycine, isoniazid, pyrazinamide and rifampicine for 2 months and then isoniazid and rifampicine for 4 months. The response was good with disappearance of symptoms but the radiological aspect showed persistence of the lower lobe opacity. The patient was lost until its consultation for pain and the persistent opacity was not explored.

The chest radiograph at admission (Fig. 1A) showed a round well defined opacity in the right lower lobe and a paravertebral opacity, chest-CT scan showed a round well defined soft tissue mass measuring 38.5/31.3 mm localized on the right lower lobe and a 40 mm (in the greatest diameter) right paravertebral cystic mass (Fig. 1 B and C). The hydatid serology, research of myobacterium tuberculosis in sputum and the histological finding of bronchial biopsy were negative.

Preoperative assessments were without anomaly and have included: blood cells account, electrolytes, glycemia, renal and hepatic tests, electrocardiography and transthoracic cardiac echography.

Under general anesthesia, and selective tracheal tube

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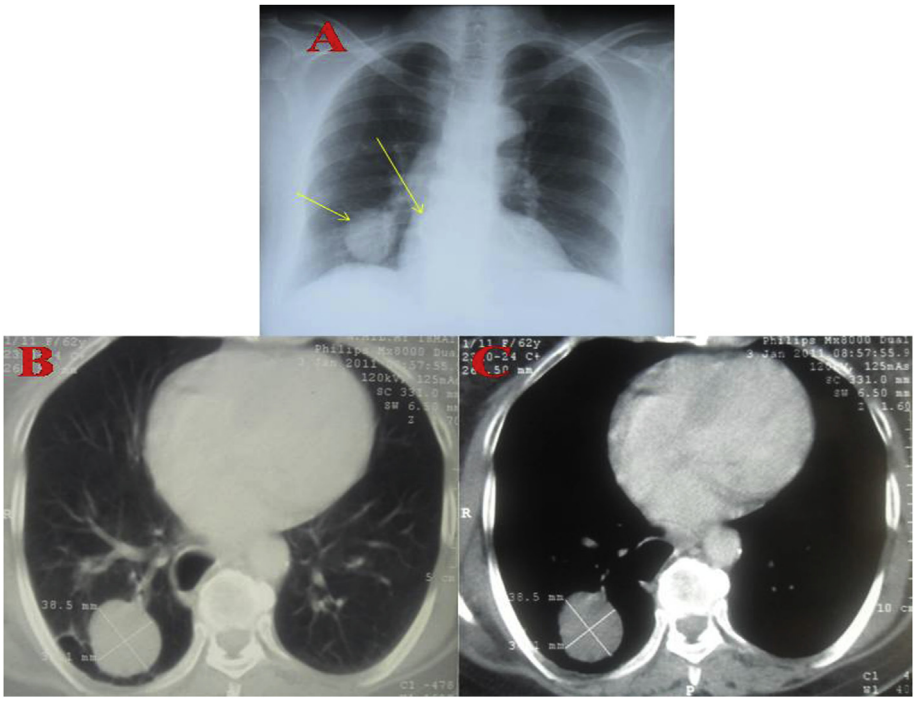

Fig. 1. A-chest radiograph showing two opacities in the parenchyma and paravertebral. B- Chest-CT on pulmonary window showing lung mass with soft tissue in the right lower lobe and cystic mass in the paravertebral lesion. C- Chest-CT on mediastinal window showing the lung mass in the right lower lobe and cystic mass in the paravertebral lesion near the esophagus.

intubation, the patient was placed in the lateral position. A right postero-lateral thoracotomy was performed in the sixth intercostal space. Exploration showed a round mass, covered by parenchyma, in the center of the lower lobe. In addition, there was a paraoesophageal cystic mass that was adherent to the vertebral body, oesophagus and lung. A lower lobectomy was performed, in addition to the complete excision of the paraoesophageal cyst (Fig. 2 A,B,C).

Gross examination of the lung mass found a cyst with a thin wall and chocolate content, surrounded with 2.5 cm normal parenchyma margins. The paraoesophageal cyst was whitish, cartilaginous in consistency and measuring 4.5/3 cm for both lesions, histology concluded to a bronchogenic cyst (Fig. 3). These cysts were lined by a coating of respiratory type ciliated and pseudostratified, based on a fibrous shell, with a few mucus-secreting bronchial glands.

The postero-inferior drain was removed the 3rd postoperative day and the antero-apical drain was removed 6th postoperative day. No perioperative complication was noted. The patient had an uneventful discharge the 7th postoperative day. At 3 weeks, the patient reported a subjective resolution of the symptoms she suffered preoperatively. However, she presented post-thoracotomy pain that was managed successfully using analgesic oral paracetamol therapy. Chest radiograph was normal with 4 years and 7 months of follow-up and the patient is actually asymptomatic (Fig. 4).

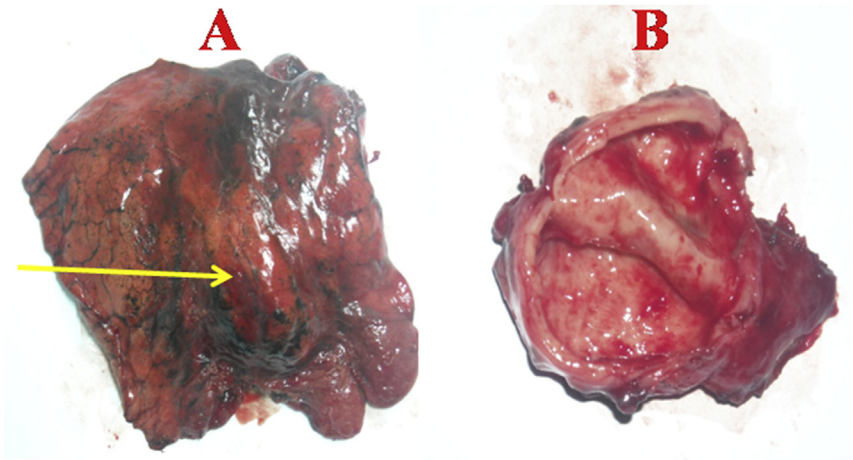

Fig. 2. Resection specimen of both pulmonary and paraesophageal cyst.