

# Benign Metastasising Leiomyomatosis of the Lung Presenting as Progressive Pneumothorax



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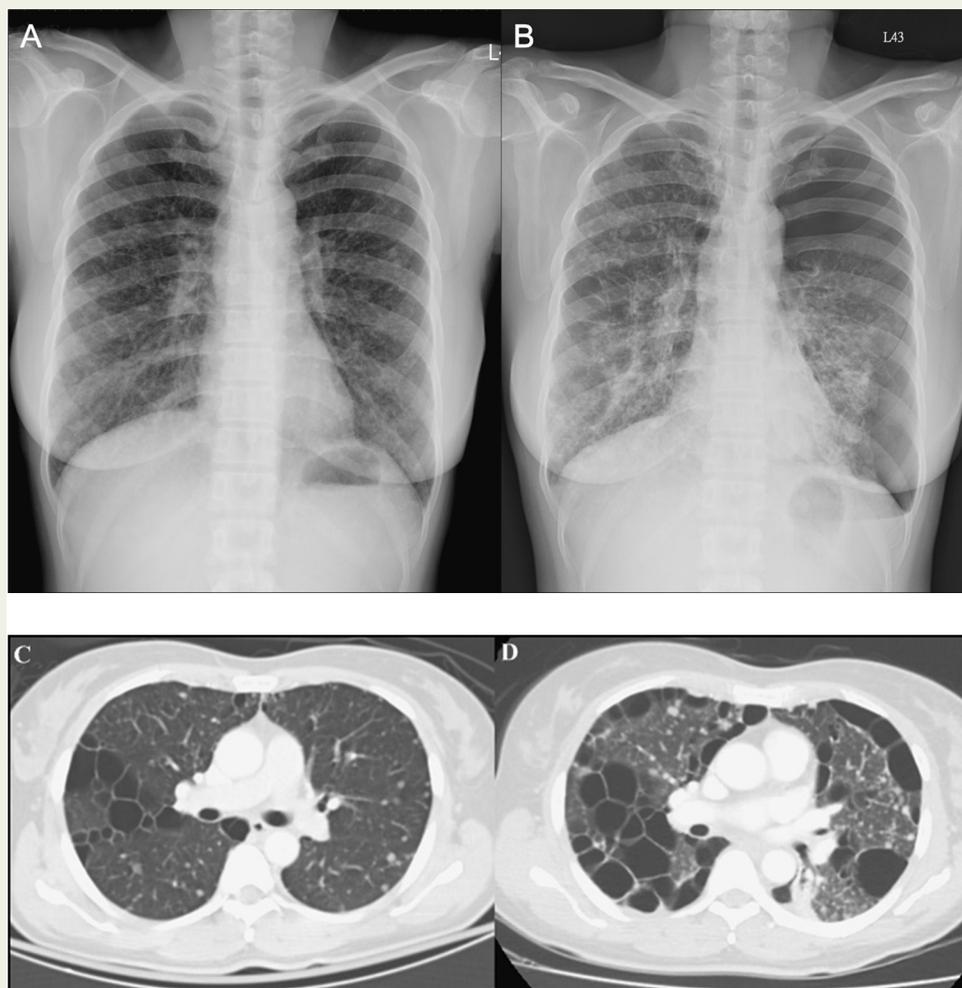
A 46-year-old woman presented to the Emergency Room, in September 2016, with left chest tightness and dyspnoea for hours, which was accompanied by pain radiating to her back, a non-productive cough, and sweating. Upon arrival the chest roentgenogram (CXR, [Figure 1B](#)) showed progressive left-side pneumothorax with mixed cystic and nodular lesions noted in both lungs compared with a baseline CXR from May 2014 ([Figure 1A](#)). She was in good health except for a history of uterine leiomyoma, which was treated with laparoscopic hysterectomy, at the age of 42 years.

During hospitalisation, the computed tomography chest revealed diffusely nodular and cystic changes ([Figure 1C](#) and [D](#)) of both lungs. As the patient had progressive dyspnoea on exertion, she underwent thoracoscopic bilateral bullectomy, wedge resection of the lung, and pleurodesis for tissue diagnosis and prevention of recurrence of pneumothorax. Histopathological examination showed that both of the nodular and cystic lesions consisted of proliferation of spindle-shaped cells in an interlacing fascicular

pattern, without evident nuclear atypia and mitotic figures. Pathology confirmed that both of the lung nodules and bullous cysts originated from benign metastasising leiomyoma.

Benign metastasising leiomyoma is a very rare disease that is usually incidentally found in women of reproductive age with a past history of uterine leiomyoma treated with hysterectomy several years previously [1,2]. Patients are usually asymptomatic with pulmonary nodules found incidentally on chest imaging. Benign metastasising leiomyoma is characterised by the presence of benign smooth muscle tumours in organs distant from the uterus: lung, skin, lymph nodes, retroperitoneum, central nervous system, heart, and bones have been reported in the literature [3]. This case study reports an extremely rare complicated case of benign metastasising leiomyoma that presented with progressive and spontaneous pneumothorax. Careful surveillance is important to prevent the possibility of disease progression resulting in pulmonary complications.

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**Figure 1** Chest roentgenogram and computed tomography.

(A) The chest roentgenogram showed multiple small nodules/cysts <1 cm in both lungs, and mild left-side apical pneumothorax during the baseline evaluation in May 2014.

(B) The chest roentgenogram showed progressive left-side pneumothorax, combined progressive cystic and nodular lesions of variable size in both lungs.

(C and D) The computed tomography chest revealed diffusely nodular and cystic changes of both lungs.

## References

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